A PROFILE OF PROFILES: A META-ANALYSIS OF ORGANIZATIONAL COMMITMENT PROFILES

A Dissertation

by

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ABSTRACT

The majority of empirical commitment research has adopted a variable-centered approach, manifested by the few studies that have examined the predictors of commitment profiles. Responding to calls for a person-centered approach to the study of commitment, this study combined latent profile analysis (LPA) with meta-analysis to examine the antecedents and bases of commitment profiles, utilizing a large archival data set (K = 40; N = 16,052).

LPA results revealed five commitment profiles (weak, moderate, AC-dominant, AC/NC-dominant, and high). Meta-analytic results revealed that high levels of bases of commitment (e.g., organizational identification, allocentrism, psychological contract fulfillment) resulted in value-based profiles, and low levels resulted in weak commitment profiles. Additionally, value-based profiles were also associated with older, married, and less educated participants than the weak commitment profiles. And finally, the value-based profiles were associated with high coworker and leader satisfaction compared to the weak commitment profiles. Implications for the commitment and profile literature are discussed.

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ברוך שהחינו וקימנו והגיענו לזמן הזה

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1. INTRODUCTION

Organizational commitment research has had a somewhat tumultuous history, where even the construct definition is still partially being debated (see Klein, Molloy, & Brinsfield, 2012; Meyer & Herscovitch, 2001). Meyer and Herscovitch (2001) provide a definition of commitment that many have accepted: "Commitment is a force that binds an individual to a course of action of relevance to one or more targets" (Meyer & Herscovitch, 2001, p. 301). Commitment has traditionally been investigated with three mindsets: affective (AC), normative (NC), and continuance (CC) commitments. Respectively, they reflect a bond based in desire, obligation, or need. A preponderance of previous research has investigated the three mindsets of commitment individually (i.e., variable-centered approach); however a recent trend in commitment research is to investigate profiles of commitment (i.e., person-centered approach). Commitment profile research involves clustering individuals into homogenous subsets based on their relative endorsement of the three mindsets of commitment (Meyer, Stanley, & Parfyonova, 2012a). This approach offers a number of benefits over the traditional variable-centered approach, which I detail below.

Although there has been some theoretical work regarding profiles of commitment and the development of profiles (Meyer & Herscovitch, 2001; Meyer & Parfyonova, 2010; Meyer et al., 2012a), hitherto there has been scant empirical research. That said, many of these theoretical propositions are testable through the use of archival data. Thus, the purpose of this work is to: (1) determine which profiles are phenomonologically experienced; (2) assess if those profiles are found consistently in a variety of different

data sets; and (3) to examine which variables predict the various profiles found. In so doing, I hope to provide a number of theoretical contributions to the organizational behavioral literature. Primarily, I seek to address a number of Meyer's predictions regarding the development of commitment profiles (e.g., Meyer, Becker, & Van Dick, 2006; Meyer & Herscovitch, 2001; Meyer & Parfyonova, 2010), some of which have found contradictory results (Meyer et al., 2012a). This meta-analysis draws on a number of different organizational behavioral theories, like the norm of reciprocity (Gouldner, 1960), job mobility theory (Mayer & Schoorman, 1998), and affective events theory (Weiss & Cropanzano, 1996), among others, to help explain how commitment develops.

In order to address these three questions, I outline the introduction as follows: First, I discuss organizational commitment with particular attention focused on commitment mindsets. Next, I outline why person-centered approaches provide researchers with a new approach to address how commitment is phenomonologically experienced. Then, I provide a literature review on profiles of organizational commitment. Finally, I make predictions regarding how the various predictor categories will relate to the established commitment profiles.

1.1 Organizational Commitment

1.1.1 Brief History of the Commitment Construct and its Evolution

Initially, commitment was most commonly assessed as a single construct with measures like the Organizational Commitment Questionnaire that primarily assessed an individual's likelihood to remain within the organization (Mowday, Steers, & Porter, 1979; Wiener, 1982). Additionally, commitment began to be researched with multiple

foci, whereby the various entities relating to the focal individual can have conflicting or overlapping goals, influencing the effect of commitment on workplace behavior (Reichers, 1985). In the evolution of the field's understanding of the construct, commitment was also applied to various workplace processes, like goal commitment (Locke, Latham, & Erez, 1988), union commitment (Larson & Fukami, 1984), and even organizational planning (Weissbein, Plamondon, & Ford, 1998).

Meyer and Allen (1991; 1997) noted that commitment measures included a wide variety of justifications for remaining in an organization; however, commitment items primarily clustered around three rationales for remaining in an organization: desire, obligation, and/or need. Meyer and Allen proposed that viewing commitment as a uniform construct diminishes the amount of explainable variance in organizational behaviors, as the various reasons to commit to one's work may result in different behavioral consequences. Additionally, construct definitions of organizational commitment became muddled with these various underlying reasons for committing to an organization, and it was not clear how each rationale functioned on its own. Thus, Meyer and Allen stressed the importance of distinguishing between these three mindsets, and created a three commitment mindsets measure that isolated commitments based on desire, obligation, or a need to remain (Meyer & Allen, 1991; Meyer, Allen, & Smith, 1993).

1.1.2 The State of Commitment Construct Today

Commitment is understood as a bond to a course of action (Meyer & Herscovitch, 2001), and the three mindsets[1] of commitment proposed by Meyer and Allen (1991; 1997) reflect variations in the type of bond. Individuals can have commitment to a wide variety of foci and those commitments can vary in both the strength and quality of these various commitments (Reichers, 1985). For example, an employee can demonstrate various commitments to his/her organization, a supervisor, coworkers, etc. In this paper, I focus solely on the organization as the focus of interest.

AC is a type of bond where individuals *desire* to follow a course of action. For example, high levels of AC may manifest as expressing ardor for achieving organizational goals. *NC*, on the other hand, is a bond based on perceived *obligation* to pursue a course of action. High NC may manifest as the perceived duty to return a favor to a coworker. Finally, *CC* is a type of bond associated with the *need* to follow a course of action. High CC may manifest as a stock trader's perceived need to retain a purchased stock, despite its continually diminishing returns.

These three mindsets each reflect a different type of bond towards a course of action. Specifically, individuals with high AC perceive a greater range of behaviors to be circumscribed by the requirements of the job (compared to individuals with high NC and CC; Meyer & Herscovtich, 2001). Additionally, when individuals' commitments are based on desires, individuals are less bothered by mitigating factors and continue on

[1] While there is some debate if commitment is merely two global mindsets, three mindsets, or four, this paper is a test of Meyer's commitment framework of three mindsets of commitment.

their course of action despite challenges; thus the binding force of AC is greater than the force is experienced with NC or CC (Meyer & Herscovitch, 2001). In the next sections, I describe the traditional, variable-centered approach to commitment and contrast it with a recent trend in the literature, the person-centered approach.

1.1.3 Variable-Centered Approach

Traditionally, commitment is assessed using variable-centered approaches (Meyer & Parfyonova, 2010). This entails examining relationships between mindsets and relevant predictors or outcomes of commitment. These analyses often looked for zero order correlations or regression weights in linear regression. For example, AC tended to positively relate to positive organizational behaviors, NC demonstrated a slightly weaker relationship with positive organizational behaviors, while CC would often demonstrate a negative relationship with positive organizational behaviors (excluding turnover; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Additionally, some researchers investigated the interactive effects of all three mindsets on organizational behaviors (e.g., Gellatly, Meyer, & Luchak, 2006). Thus, the sine qua non of variable-centered approaches is that variables are being investigated (e.g., AC, NC, and/or CC). This approach's primary advantage is that it allows researchers to isolate the effects of a given mindset(s) on a set of outcomes, an important first step in understanding cause-effect relationships (Shadish, Cook, & Campbell, 2002).

1.1.4 Critiques of Variable-Centered Approaches

There are a number of limitations to taking a variable-centered approach to studying commitment. First, a practical critique of the variable-centered approach is that

they often do not have the power to detect significance in complex interactions (Aguinis & Gottfredson, 2010), requiring substantial sample sizes. That is, significant three-way interactions (or more) are difficult to detect as they necessitate extremely large sample sizes to detect their small effect sizes. This is relevant in the context of commitment whereby individuals have varying levels of the three mindsets of commitment (a minimal three-way interaction) coupled with multiple foci (e.g., supervisor, coworkers, organization, job, etc.). Assessing such a combination of variables in a single interaction is exceedingly difficult. In addition, as the number of variables included in an interaction increase, the interpretation of such an interaction (if it is significant) becomes exponentially more difficult as variables are added. Thus, limited power and difficulty in interpretation are practical issues with using variable-centered approaches.

Second, variable-centered analyses assume that all individuals within a given sample come from a single probability distribution, which is not always correct (Pastor, Baron, Miller, & Davis, 2007). For example, variable-centered analyses have demonstrated that more homework (until it reaches seven hours per week) for high school students optimizes learning (Cooper, Robinson, & Patall, 2006). However, that assumes that all individuals assessed come from a single probability distribution. Trautwein and colleagues (2007; 2009) found that the relationship between homework and learning efficacy was dependent on a number of group-level variables, like the degree of teacher involvement in assigning and evaluating homework. Thus, the positive relationship between homework and learning demonstrated by Cooper et al.'s (2006) work had biased parameter estimates, as not all individuals were from a single

probability distribution. Specifically, school samples with lower teacher-homework involvement were a subsample of the overall sample and observed weak to negative effects regarding the relationship between homework and learning. This example shows how important it is to determine whether a sample has only one underlying probability distribution.

The third limitation of using variable-centered approaches is that it does not allow researchers to accurately address many of the theoretical propositions regarding the development of commitment (e.g., Meyer & Herscovitch, 2001; Meyer, Becker, & Van Dick, 2006). Specifically, a number of hypotheses have been proposed on the development of different profiles of commitment, which perforce assume that there are multiple probability distributions within a single sample. Consequently, testing out these propositions, whether they are correct or not, can only be done using person-centered approaches (discussed below) which allow for the assessment of multiple probability distributions in a single sample.

Fourth, many of the variable-centered approaches that do assess interactive effects fail to accurately grasp the phenomenological experience of commitment (Meyer Stanley, & Vandenberg, 2013). Researchers can create profiles using variable focused approaches (e.g., median split, interactions). However, labeling the various groups as homogenous subsets may not be accurate. For example, median splits often have a wide degree of variability within category (Vermundt & Magidson, 2002). Thus, all individuals above the median are considered to be equivalent, which is often not the case (see this same discussion about banding [Campion et al., 2001]). Additionally, the

number of potential splits (e.g., half/third/quarterly splits) has little to no theoretical justification. Thus, the lack of reasoning to determine subgroups is lacking both theoretically as well as empirically.

Finally, variable centered approaches are unable to understand the behavioral implications of moderate groups. That is, variable-centered approaches typically investigate how individuals on a high or low level of a given construct respond to a given stimuli. However, individuals with less extreme responses may function non-linearly. For example, if high levels of a given predictor lead to high levels of a given outcome, moderately high levels of a given predictor may not lead to moderately high levels of that same outcome.

To combat all the issues cited above, person-centered analyses assess whether samples have multiple underlying probability distributions. In the context of commitment, person-centered analyses refer to a simultaneous assessment of all three mindsets, examining within-individual effects by grouping individuals into homogenous profiles. Profiles are empirically derived by homogeneity within profile, as opposed to the arbitrarily chosen data splits. Person-centered approaches do not have the problems discussed by variable-centered approaches because all three mindsets are accounted for simultaneously. Profiles can then be analyzed relative to important antecedent and consequence variables, and compared to other profiles. This allows for comparisons of commitment mindsets, as they are phenomenologically and conjointly experienced, and their relationships with other variables, at high, low, and moderate levels of all inputted

constructs. Consequently, the current trend in the commitment literature is to examine profiles of commitment.

1.2 Commitment Profiles

Research on commitment profiles is still in a somewhat nascent stage of development. Early work by Jaros (1997) utilized the variable-centered interaction approach, but his findings were not influential until Meyer and Herscovitch (2001) brought greater attention to interactions of commitment mindsets. Meyer and Herscovitch (2001) theorized the effects of eight profiles based on a median-split of the three mindsets. They predicted that pure profiles (profiles in which there was a single dominant mindset) would demonstrate the strongest relationships with outcomes. Specifically, a pure AC profile (now referred to as AC-dominant: high levels of AC, low levels of NC and CC), followed by a pure NC (now referred to as NC-dominant: high levels of NC, low levels of AC and CC) and a pure CC profile (now referred to as CC-dominant: high levels of CC, low levels of AC and NC), were expected to have the strongest effects on relevant workplace outcomes. That is, interactions of high levels of multiple mindsets were believed to be inhibitory as a result of conflicting goals. Thus, individuals with an AC/NC-dominant profile (high levels of AC and NC, low levels of CC) were expected to have weaker relationships with positive workplace outcomes than an AC-dominant profile, as the AC-dominant profile was not being inhibited by any other weaker mindset (i.e., NC). In other words, bonds based in desires alone were considered to be stronger and more positive than bonds based in both desire and obligation.

Additionally, Meyer and Herscovitch (2001) proposed that commitment researchers have found such weak effects on relevant workplace outcomes because the mindsets intra-individually interacted. This relationship was such that the mindset's effects on outcomes would be augmented when accounting for this variance. Specifically, Meyer and Herscovitch (2001) viewed AC and to a lesser extent NC as a positive bond, while CC was viewed as somewhat negative bonds (Meyer et al., 2013). Therefore, Meyer and Herscovitch (2001) believed that AC would be attenuated when paired with high levels of CC, as CC was viewed as a less positive attachment.

1.2.1 Empirical Tests of Meyer and Herscovitch 2001

Wasti (2005) conducted one of the first empirical assessments of Meyer and Herscovitch's (2001) propositions. However, instead of using the median-split approach discussed by Meyer and Herscovitch (2001), Wasti used cluster analysis methods. Cluster analysis is a statistical technique which creates homogeneous subsets for a given population based on within group consistency and between group variability. Wasti (2005) found seven different profiles across two studies, with five replicated profiles: (1) high (high levels of all three mindsets); (2) low (low levels of all three mindsets); (3) AC-dominant; (4) CC-dominant; and, (5) AC/NC-dominant profiles; however, one study found a medium profile (moderate levels of all three mindsets) whereas the other found a NC/CC-dominant profile (high levels of NC and CC, low levels of AC). Wasti (2005) observed consistent positive effects on outcomes for the high, AC/NC-dominant, and AC-dominant profiles on stress, withdrawal, turnover intent, and OCBs, while she observed weaker effects for the CC-dominant and NC/CC-dominant profiles on those

same outcomes. The low and medium profiles demonstrated consistent negative effects on the same outcomes. The strongest effects were found for the high and AC/NC-dominant profiles, as opposed to the pure profiles that Meyer and Herscovitch (2001) predicted.

Gellatly et al. (2006) created eight commitment profiles via median-splits of all three mindsets, and examined their interactive effects. They found that, in regards to pure profiles, the AC-dominant and NC-dominant profiles outperformed the CC-dominant and low profiles on both focal and discretionary outcomes. But in regards to the cross-profile comparison for all possible profiles, the AC/NC-dominant profile demonstrated the strongest positive effects on performance, followed by the AC-dominant profile. The high commitment profile was most strongly related to OCBs, followed by the AC/NC-dominant profile and then finally by the AC-dominant profile. Further, the interactive effects were stronger than the effects observed for individual mindsets alone, supporting Meyer and Herscovitch's (2001) assertion that focusing strictly on individual mindsets alone underestimates the true effect of commitment on outcomes.

Like Wasti (2005), Gellatly et al. (2006) found that the pure profiles (i.e., single dominant mindset) did not display the strongest effects. Meyer and Herscovitch (2001) proposed that the AC-dominant profile should demonstrate the strongest relationship with positive workplace outcomes because it is free from construct attenuation that emanates primarily from CC. That said, Gellatly et al. (2006) found that NC augmented the positive effects of AC on discretionary behaviors. Thus, unlike Meyer and

Herscovitch's (2001) original propositions, the weaker mindsets do not inhibit AC; instead, they augment the positive effects of AC on positive organizational outcomes.

In their discussion, Gellatly et al. (2006) proposed that our understanding of NC must shift from a focus on the isolated mindset to a focus on the greater context within which it is observed. That is to say, there are meaningful distinctions from when NC is paired with AC versus CC. They called this the context effect, whereby strong positive outcomes are associated with NC when it is paired with AC, while weaker effects are associated with NC when it is solely paired with CC.

1.2.2 Recent Theoretical Developments on Profiles of Commitment

Meyer et al. (2006) used the findings of both Gellatly et al. (2006) and Wasti (2005) as a point of departure to reassess Meyer and Herscovitch's (2001) propositions. However, Meyer et al. (2006) blended the lines between the profile and variable-centered approaches. Meyer et al. (2006) focused solely on the AC and CC mindsets in isolation, but viewed NC as a blended combination of AC/NC or NC/CC. Thus, AC and CC were viewed with a variable-centered lens while NC was discussed in person-centered terms. This is why both profiles and mindsets are discussed for Meyer et al.'s (2006) paper. Specifically, they concurred with the previous empirical findings that NC functions differently if it is paired with AC and/or CC. The implication of this is that when NC is paired with AC, commitment is experienced as a moral imperative whereby individuals fulfill their internally regulated obligations. Opposingly, when NC is paired with CC, an individual's experience of commitment is that of an indebted obligation, whereby the individual is trying to discharge their more externally regulated obligations.

Meyer et al. (2006) proposed that this differentiation between the moral imperative and indebted obligation profiles appears to be the fulcrum at which the effects of commitment changes. That is, the AC mindset and the AC/NC-dominant profile all observe positive effects with relevant workplace constructs, whereas those effects weaken with the NC/CC-dominant profile.

Building on this, Meyer et al. (2006) proposed that there are essentially two primary commitment categories: exchange based and value based commitments. Exchange-based commitments are commitments rooted in an exchange of resources (i.e., pay, benefit, etc.) whereas value-based commitments refer to mindsets which are rooted in shared values. CC is clearly an exchange-based commitment as the mindset is focused on fulfilling the minimal requirements to maintain organizational membership (Meyer & Herscovitch, 2001), while AC is a value-based commitment because its desire component largely stems from value congruency (Meyer & Allen, 1997).

However, NC has elements of both categories (Meyer et al., 2006; Meyer & Parfyonova, 2010). Specifically, a moral obligation profile is indicative of a value congruency between the focal individual and the target of commitment because moral obligations stem from one's values. On the other hand, an indebted obligation profile is typified by a transactional relationship, whereby the focal individual wishes to be removed of any external constraint. Similarly, the interaction of NC and AC on positive workplace outcomes leads to more desirable effects than when NC is paired with CC, as the AC*NC combination reflects a value-based commitment (moral imperative), while the NC*CC combination reflects an exchange-based commitment (indebted obligation).

Consequently, the moral imperative mindset was grouped in the value-based commitments, while the indebted obligation mindset was grouped in the exchange-based commitments.

Meyer and Parfyonova (2010) further refined Meyer et al.'s (2006) views of NC. NC has often been perceived to be an unimportant mindset of commitment, as it is often highly correlated with AC, yet demonstrates weaker relationships with outcomes (Bergman, 2006). However, Meyer and Parfyonova (2010) make the case for the relevance of retaining the NC construct and rely heavily on a person-centered conceptualization of NC. They suggest that the high correlation between AC and NC suggests that the two often co-occur because experiences that significantly influence the development of AC (e.g., perceived organizational support) often support the development of NC as well. Thus, even though the two constructs are linked due to their shared predictors, the two constructs are still unique. Thus, predictors like individualism/collectivism have been proposed to differentiate the two mindsets, as they may differentially predict AC and NC, unlike many other predictors.

Additionally, Meyer and Parfyonova (2010) propose that the investigation of NC through variable-centered analyses does not offer a fruitful avenue for differentiating NC from AC; rather, a person-centered approach whereby the context effect can be addressed would be beneficial. That is to say, if NC is experienced differently (as evinced by a different relationship with predictors/outcomes) based on whether it is paired with high levels of AC and/or CC, then NC must be viewed as an important construct.

Since Meyer et al. (2006) and Meyer and Parfyonova (2010), a number of empirical studies have been conducted assessing the consequences of various profiles of commitment. Meyer et al. (2012a) provided both a narrative review of these findings and an additional empirical analysis of the consequences of commitment on focal, discretionary, and regulatory cognitions. The authors described the seven profiles typically found in previous empirical research: (1) high, (2) low, (3) medium, (4) AC-dominant, (5) CC-dominant, (6) AC/NC-dominant, and (7) NC/CC-dominant profiles. Meyer et al. (2012a) provided a number of summary points regarding the commitment profile literature. They noted that a NC-dominant profile does not seem to be phenomonologically experienced, as observed by the unanimous absence of a NC-dominant profile. That said, all previous empirical works on profiles of commitment have each utilized very different analytical strategies. For example, Gellatly et al. (2006) examined interactions in a standard regression model, Wasti (2005) used cluster analytic techniques to determine profile membership, while Stanley, Vandenberg, Vandenberg, and Bentein (2009) performed a latent profile analysis (LPA). As discussed later, these statistical techniques are quite different and can result in very distinct profile structures (McLachlan & Peel, 2000).

Meyer et al. (2012a) also observed that there were consistent positive effects found for the high, AC/NC-dominant, and AC-dominant profiles on positive workplace outcomes (e.g., attitudes, contextual performance, etc.), while the CC-dominant and NC/CC-dominant profiles had weak or benign effects (depending on the outcome) on positive workplace outcomes, and the low and medium profiles were found to have

generally negative effects on positive workplace outcomes. Based on Meyer et al.'s (2012) summary, it appears that profiles tend to have three broad effects: either (1) a positive effects (e.g., high, AC/NC-dominant, and AC-dominant profiles), (2) weak effects (e.g., NC/CC-dominant and CC-dominant profiles), or (3) negative effects (e.g., low and medium profiles). Additionally, Meyer et al. (2012a) concurred with Gellatly et al. (2006) and Meyer and Parfyonova (2010) that whether NC was paired with AC and/or with CC had meaningful consequences on the outcomes of profiles.

In summary, Meyer and Herscovitch's (2001) hypotheses regarding the attenuating effects of NC and CC on an AC-dominant profile were tentatively rejected. It seems that NC, and even CC, have added benefits and support self-determined performance. Thus, Gellatly et al.'s (2006) and Meyer and Parfyonova's (2010) assertions regarding the context effect of NC does have substantiated empirical support.

1.2.3 Commitment Profile Critiques

In summary, both empirical and theoretical research has suggested that five to seven profiles phenomonologically exist, and these profiles have three observed outcomes: positive, weak, or negative effects. However, results are not yet dispositive. First, the empirical work conducted thus far has utilized a wide variety of approaches to identifying profiles. This may be problematic because the various analytical approaches can produce variant results (Vermundt & Magidson, 2000). While suggesting that results hitherto have displayed variability is a subjective judgment, it is clear that the different methods do not come to identical conclusions. Meyer et al. (2012a) found nine possible profiles (though five to seven were most common), some of which did not clearly fit into

any preconceived category (see Somers [2009]). While five profiles did emerge relatively consistently, at least four other profiles emerged in 29-57% of the profile studies. Thus, while five profiles were found in nearly all samples, many other profiles also emerged, some frequently and some infrequently. This may be a result, in part, of the various methods employed.

Specifically, the profiles described by Meyer and Herscovitch (2001) are a priori selected and forced to be populated (although some profiles may have very few numbers). This is because profiles in median-split approaches are based on arbitrarily chosen cut off values. That is to say, all three mindsets can be split into high and low categories; therefore, crossing these categories nearly guarantees that all potential high/low profiles will emerge.[2] Unfortunately however, those profiles will not be representative of the same profile from another study because the medians differ across samples. For example, an AC/NC-dominant profile will not be equivalent across two studies because each study's profile classification is dependent on where the median lies. Additionally, there is great heterogeneity among profiles, as splitting all variables into high/low categories leaves a large amount of unaccounted variance. Likewise, even among person-centered analyses not all approaches are equivalent (Bauerr & Curran, 2003; Morin, Morizot, Boudrias, & Madore, 2011; Pastor et al., 2007; Steinley & Brusco, 2011). Thus, each method entails a distinct approach, and each approach can result in a different profile classification.

[2] It does not necessarily *fully* guarantee that all profiles will emerge if not all subgroups are populated.

Ignoring the fact that these various analyses are distinct and can come to contrary conclusions, each study conducted on profiles of commitment is vulnerable to sampling error, like all first-order studies (Hunter & Schmidt, 2004). However, this error may be greater than what meets the eye. For example, Meyer et al. (2012a) had nearly 600 participants, but four of the six profiles had fewer than 75 participants (and two of those profiles had fewer than 50 participants). It is common practice to then compare the various profiles with ANOVA/ANCOVA approaches, using standard post-hoc comparisons to examine if the profiles are distinct on a construct of interest. Thus, using Meyer et al.'s (2012a) study as an example, only one of the 15 post-hoc comparisons had both comparison groups larger than 75 participants. Consequently, even though a number of the previous commitment profile studies have utilized relatively large sample sizes like Meyer et al. (2012a), fractioning the sample into five to seven profiles often leaves researchers making comparisons of small groups; studies then become vulnerable to having weak power and subsequently a lower likelihood to correctly reject the null Hypothesis (Cohen, 1992; 1994). Additionally, unequal cells also attenuate effect sizes as well, causing concern for making a Type II error (Warner, 2008). As a result, sampling error may be of greater concern in this domain of research than in many others.

A final critique of this research domain is that while much has been discussed regarding the outcomes of commitment profiles, few have discussed the antecedents/bases of commitment profiles (Meyer & Parfyonova, 2010). Thus, even if the previous empirical work was dispositive and contained little room for criticism, half of the commitment research domain has heretofore been ignored.

1.2.4 The Current Study

Based on all of the above, the commitment profile literature is still in a nascent stage of development and needs further empirical assessment. A necessary next step for this field to move forward is to have greater clarity regarding both the number and the interpretation of profiles, as well as begin discussion of predictors of those profiles. This work seeks to remedy the three limitations mentioned above by accessing archival organizational commitment data sets to obtain a large sample that will allow for: (1) properly defining the cluster placement using one analytic technique; (2) define the phenomenological experience of those profiles; and (3) determine the relationship between the emerged profiles and their antecedents and bases of commitment.

As five to seven profiles have been espoused by previous researchers, there are up to 21 possible paired profile comparisons possible for each variable of interest. Thus, I sought a more parsimonious categorization of the profiles. Meyer et al.'s (2006) dichotomy of exchange and value based commitments are used as a guide for my predictions (see Figure 1 for a summary). Exchange based profiles are profiles typified by a transactional mindset, whereby performance is contingent on an exchange of goods or services; opposingly, a value-based commitment profile is characterized as an attachment to a focus based on shared ideologies and beliefs. Meyer et al. (2006) explained that the AC/NC-dominant profile is a value based profile. Similarly, any profile with high AC can be considered a value-based profile because (a) the phenomenology of AC predominates (Meyer, Becker, & Vandenberg, 2004), (b) pairing high AC with high CC may merely be a cognition of the realities of the workplace for

the person, and (c) previous research shows that the nature of NC is dependent on its pairing with AC and/or CC (e.g., Gellatly et al., 2006; Meyer & Parfyonova, 2010; Meyer et al., 2012a). As a result, the high commitment and AC-dominant profiles are considered value commitments as well, as both are dominated by an AC mindset.

Exchange-based profiles are typified by the absence of AC with the presence of another dominant mindset instead (e.g., NC and/or CC), which means that the dominating experience of commitment is transactional and not ideological (as reflected by the low AC). These transactional attachments are not negative; however, they are not as deeply felt and personal as value-based profiles. Specifically, Meyer et al. (2006) designated the NC/CC-dominant profile as an exchange-based profile, as reflected in the minimal ideological bases for attaching. Additionally, I also include the CC-dominant profile which has been associated with a greater belief in exchange-ideology, prototypical of an exchange-based commitment (Meyer & Parfyonova, 2010; Meyer et al., 2012a). Therefore, both the NC/CC-dominant and CC-dominant profiles are lacking the value component present in value-based profiles, yet such people are still committed to their organization.

Finally, I expand Meyer et al.'s (2006) dichotomy by including a weak-commitment category. The weak commitment profiles are typified by loose attachments towards the focus of commitment. For weak commitment profiles, individuals not only fail to share values with the focus of commitment, but either feel ambivalently or do not even wish for a continued exchange of goods. That is, these individuals have weak or marginal commitments to the organization, and therefore fail to provide the necessary

inputs to expect an exchange of goods. Unlike both the value and exchange-based profiles, no single mindset dominates the phenomenology of the weak commitment profiles. If there is no strong experience of any mindset, then there is a minimal level of a bond and therefore it is unlikely that individuals will take any course of action. In a sense, a dominant mindset anchors the bond to the focus of commitment while the other mindsets determine the flavor of the bond. However, individuals with low or moderate levels of all three mindsets do not have a bond which facilitates action. Essentially, I propose that to feel committed, at least one of the mindsets must be high and the other non-dominant mindsets influence how that high mindset is felt. However, people with moderate profiles feel moderately at most, across all mindsets. Even though there are phenomenologically interactive effects among the mindsets, individuals do not add up their CC, NC, and AC to make up a "total" commitment amount. If that were true, individuals with moderate levels of all three mindsets might have a greater total commitment than individuals with a single dominant mindset (e.g., AC-dominant), which is not the case (Meyer et al., 2012a). Instead, the mindsets together describe the bond, and with each mindset moderate, the resultant bond is moderate at best. Likewise, the low commitment profile has no dominating experience of commitment either, resulting in no bond. As a result, the moderate and low commitment profiles are grouped in the weak commitment category.

Thus, the following predictions are framed regarding the comparison of these three categories of commitment profiles: value-based commitment profiles, exchange-based commitment profiles, and weak commitment profiles. This is not to say that

profiles within the same category will be identical; rather, the differences observed among profiles within the same category will be merely a distinction in degree. By that, I mean that differences observed within a single category should be smaller than those across categories; however, their specific within-category rank order I do not delineate because theory has not yet developed to explain these nuanced distinctions. Thus, all results will contain all potential profile comparisons using this categorization. As a result, Research Question 1 is: Which commitment profiles will emerge?

1.3 Predictors of Commitment

The preponderance of empirical attention has focused on outcomes of commitment rather than predictors of commitment (Meyer et al., 2002). A majority of the research that does exist has focused on either *antecedents* or *bases* of commitment. Antecedents refer to individual or organizational characteristics that have been linked to commitment. For example, age, marital status, locus of control, and workplace experiences are all said to precede commitment; however, it is unclear whether these variables cause commitment or are merely correlated with it. Bases of commitment, on the other hand, are process-variables that engender the development of specific mindsets (Meyer et al., 2004) or an omnibus experience of commitment (Mowday, Steers, & Porter, 1979). Thus, bases are hypothesize to function in a more developmental role, aiding in the unfolding of commitment over time while antecedents are variables that appear to precede commitment but are not necessarily developmental (see Bergman, Benzer, Kabins, Bhupatkar, & Panina, in press, for a greater discussion). Several bases have been proposed, including identification (Meyer et al., 2006), regulation (Meyer et

al., 2004), psychological contract fulfillment (McInnis, Meyer, & Feldman, 2009), social exchange (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001), societal syndromes (Wasti, 2003; Wasit & Onder, 2009), and values (Bergman, et al., in press). I discuss both bases and antecedents of commitment below to help develop a framework which will then guide predictions regarding commitment profiles.

A summary of all predictions can be found in Figure 2. There are two noteworthy aspects of this figure worth discussion. First, the difference in predictability between the value-based and exchange-based profiles is expected to be less than the difference between either of these two profiles and weak commitment profiles. This is predicted because both value and exchange-based profiles reflect a strong bond in some form. Although the composition of each profile is unique, every profile in either the value-based or exchange-based profiles has at least one mindset that is strongly experienced. As a result, every individual in either of these profiles is bound to their organization on account of at least one dominating factor. As discussed above, in order for individuals to be driven towards a course of action, at minimum, one dominant mindset must be experienced. Therefore, the difference between the value and exchange-based profiles is expected to be less than the differences between either and the weak commitment profiles. Second, profile differentiation is expected to be greater for bases than antecedents. This is predicted because bases reflect process-variables which engender the development of commitment directly (e.g., identification, psychological contracts) whereas antecedents are variables that are theorized to appear before commitment, but do not necessarily cause it. Although they might contribute to the development of

commitment, they are often just as likely to be associated with other causal processes. For example, perceived locus of control refers to the extent to which individuals believe that events are under their own volition (Ajzen, 2002). A natural inclination towards having an internal locus of control could likely lead to internally motivated regulations while at the same time helping to induce greater deep identification (e.g., Gagne & Deci, 2005; Meyer et al., 2006). Therefore, perceived locus of control has the potential to contribute to two distinct causal processes. Thus, antecedents are viewed as more distal constructs that underlie or affect the likelihood of activating causal chains beyond the predictor-commitment link. Additionally, theory has posited that bases are fundamental in the development of commitment (Meyer et al., 2002) as opposed to many antecedent variables. As a result, bases help promote matches between an organization and an individual, likely making its effects stronger than the more distal antecedents. Likewise, Meyer et al.'s (2002) meta-analysis demonstrated weaker effects for antecedents than bases of commitment mindsets. Thus, I expect profile differences to be greater for bases than antecedents.

An assumption I make in my hypotheses is that all seven espoused profiles will emerge; however, it is unclear if all seven will be empirically found, as many samples have found a hodgepodge of profiles, though these seven appear to be most common. That said, in virtually all empirical profile studies reviewed by Meyer et al. (2012a), each study found at least one profile from each of the three categories that I have proposed. Thus, although it is not yet determined whether all seven profiles will emerge,

the predictions will still be valid if at minimum one profile from each category of profiles will emerge, which is likely given Meyer et al.'s (2012a) narrative review.

1.3.1 Bases of Commitment

For bases of commitment profiles, I highlight a single base as an outline for all other bases.[3] Specifically, I provide a detailed prediction for how organizational identification is expected to relate to the various profile categories, and then expect all other bases to relate similarly. That is, all bases of commitment available in this study propose that greater levels of the base promote more positive attachments (i.e., value-based profiles), while moderate/weaker levels of a given base produce functional attachments (i.e., exchange-based profiles), and low or non-existent levels of a given base will result in no attachment (i.e., weak commitment profiles).Thus, all other bases are expected to parallel my predictions for my first base under discussion, whereby high levels result in value-based profiles, moderate levels result in exchange-based profiles, and low levels result in weak commitment profiles.

1.3.1.1 Organizational Identification

Meyer et al. (2006) distinguished commitment from organizational identification. Identification occurs when a person views group membership as an integral part of his/her self-concept (Ashforth & Mael, 1989; Riketta, 2005), which creates the phenomenological experience of being part of a greater whole (Rousseau, 1998; Tajfel, 1978). Additionally, being committed is a conscious act, whereas identification can

[3] I only focus my hypotheses on predictors of commitment which have at minimum three independent samples that assessed the given construct.

occur subconsciously (Meyer et al., 2006). Ashforth and Mael (1989) argued that identification is a precursor to commitment because shared experiences and feelings of belongingness (elements of identity) create an emotional bond (i.e., AC).

Rousseau (1998) distinguished between situated and deep structure identities, where the former refers to temporary, transactional identities which are extinguished once the identity-relevant cues are removed (i.e., leave the organization), while the latter refers to longer lasting identities based on value congruency and shared experiences. In the development of their predictions regarding the relationships between the two types of identities and mindsets, Meyer et al. (2006) proposed that situated identities cause exchange-based commitments to develop while deep structure identities cause value-based commitments to develop. AC has long been linked to identification (Ashforth & Mael, 1989; Meyer & Allen, 1997; Pratt, 1998; Riketta, 2005). Theoretically, AC is most likely predicted by deep structure identities because deep structure identities represent the integration of group membership into one's self-concept, largely based in value congruence (Kristof-Brown, Zimmerman, & Johnson, 2005; Verquer, Beehr, & Wagner, 2003). The same would be true for the moral imperative profile, because the obligation is associated with valued outcomes; presumably, these outcomes facilitate some aspect of a shared value with the organization and should therefore be related to deep structure identities.

On the other hand, situated identities were expected to cause exchange-based commitments to develop (Meyer et al., 2006). Situated identities are, by definition, situationally- bound and are likely to be perceived as a form of transactional

psychological contracts (Rousseau, 1995) whereby the relationship is maintained as long as the agreed upon exchange of resources continues. Situated identities are likely to cause exchange-based commitments, as they focus on fulfilling the requirements of one's work (i.e., focal behaviors) in order to continue the transactional relationship (Meyer & Herscovitch, 2001). Similarly, an indebted obligation profile focuses on meeting external demands in order to maintain the status quo in a relationship. Therefore, the two exchange-based mindsets are likely to develop from a situated identity which is inherently transactional in nature.

In this study, I focus on overall perceptions of identification with the organization. Subsequently, I focus on this broad perspective of identification, whereby individuals view group (e.g., organization) membership as an integral aspect of one's self-concept. For example, people working for the Chicago Cubs organization that "bleed red and blue" (colors of the Chicago Cubs) view their group membership as an indispensable aspect of their identity.

I largely parallel my hypotheses to Meyer et al.'s (2006) predictions. Specifically, while deep and situated identities reflect fundamentally different types of identification, they largely parallel stronger versus weaker identities. That is to say, situated identities are situationally-specific; when contextual cues prime individuals of their identities, they react as identified group members (Riketta, Van Dick, & Rousseau, 2006). However, if those cues are removed, then individuals act as non-group members. On the other hand, deep identities reflect a stable identification with the group, and this identification will remain even if situational cues are removed. Deep identities develop

over long term relationships, whereby the individual integrates the values of the focal group into his/her own self-concept or integrating the organization's values into one's self-concept (Pratt, 1998). Thus, deep identities reflect a stronger, more stable value-based identification than do situated identities, which are more fluctuating and interest-based; meaning, deep identities reflect a strong overall identification with the focal group, while situated identities reflect a weaker overall identification with the focal group. Consequently, I would expect that people with higher identification should be more likely to have value-based profiles with their organization compared to exchange-based profiles.

Whereas these first two predictions followed from Meyer et al.'s (2006) work, the authors did not discuss weak commitment profiles. Moderate and often low values are ignored in variable-centered approaches, like Meyer et al.'s (2006) work; variable-centered approaches simply look at high versus low levels of a single construct (i.e., mindset), and fail to address moderate levels of any individual mindset. Similarly, Meyer et al. (2006) only focused on high levels of commitment mindsets (i.e., high AC, AC/NC, NC/CC, and CC), but did not address low or moderate levels of all mindsets (i.e., a low or moderate commitment profiles). Therefore, the prediction regarding the relationship between organizational identification and weak commitment profiles has yet to be addressed in the conceptual or empirical commitment literature. That said, it seems likely that weak commitment profiles will express a weaker relationship with the broad organizational identification construct than either value-based or exchange-based profiles. That is to say, weak commitment profiles reflect a *lack* of attachment between

the employee and the organization, while the other profiles reflect some type of bond. If the employee did identify with the organization, even for transactional purposes, then s/he would at minimum have a CC-dominant profile to retain membership in the organization. However, weak commitment profiles are typified by individuals who do not even seek out a continued exchange of goods; rather, they are ambivalent towards their organization or seeking to remove themselves from the yoke of their relationship, most likely due in part to an insubstantial identification with their organization. Consequently, hypothesis 1 is: Value-based profiles will be associated with higher levels of identification compared to (a) exchange-based profiles and (b) weak commitment profiles. Exchange-based profiles will be associated with higher levels of identification compared to (c) weak commitment profiles.

1.3.1.2 Perceived Organizational Support

Organizational support theory (Eisenberger, Huntington, Hutchinson, & Sowa, 1986; Shore & Shore, 1995) proposes that an organization's employees develop global perceptions of their worth and value towards the organization. These broad beliefs are seen as an assurance that the organization will provide the necessary resources to carry out one's job effectively (Rhoades & Eisenberger, 2002). Employees view supervisors as organizational agents, such that their supervisor's actions reflect beliefs and values of the organization as a whole. Thus, when a supervisor is effective and supportive, employees personify the organization as a congruent representation of their supervisor. The reverse is also true. Accordingly, employees feel the need to reciprocate the same support felt from the organization which emanates from the supervisor (Eisenberger et al., 2001).

The core predictions of POS are based on the norm of reciprocity (Gouldner, 1960), which suggests that a positive social exchange where one party acts favorably towards another creates a feeling of indebtedness on the receiving party. Consequently, employees satisfy this feeling of indebtedness through greater AC towards the company, because the feeling of indebtedness which was created by the direct agents (i.e., supervisors) is transferred to the organization (Eisenberger et al., 2001).

It should come as no surprise that a strong link between POS and AC has been established. Meta-analytic findings reveal that in over 42 studies (N = 11,706), POS and AC have a very strong corrected correlation (ρ = .73; Rhoades & Eisenberger, 2001). Additionally, Eisenberger et al. (2001) found that the relationship between POS and AC was partially mediated by felt obligation, such that high POS created greater feelings of obligation towards the organization and subsequent higher AC. That said, meta-analytic findings for CC reveal a weak negative relationship (ρ = -.15, k = 10, N = 1,947; Rhoades & Eisenberger, 2001), whereas NC has tacitly been couched under the terminology of perceived obligation, though rarely measured. Meyer et al. (2002) examined the relationship between POS and the three mindsets of commitment and found that AC strongly correlated with POS (ρ = .63), NC had a slightly weaker correlation (ρ = .47) and CC had a weak negative correlation (ρ = -.11). Thus, POS appears to have its most pronounced effects on AC, slightly weaker effects on NC, and slightly diminishes CC. The effects for CC seem logical, as POS supports the development of a mutually beneficial relationship, which is uncharacteristic of CC mindsets; however, little theoretical attention has been devoted as to why POS has

moderately strong effects on NC. Likewise, POS is interpreted as support emanating from the organization, which is likely to shift mindsets from transactional to more relational (Rousseau, 1989).

POS can be interpreted as an added resource to employees (Hobfoll, 1998) which employees seek to reciprocate in like measure (Eisenberger et al., 2001). Thus, individuals with significant POS will respond with a positive profile of commitment, dominated in some way by values (i.e., value-based profiles). This is due to an individual's desire to return positive interactions with positive behaviors (Gouldner, 1960). However, at moderate levels of POS, individuals will be likely to respond functionally, whereby an employee's inputs are evaluated based on their outputs (i.e., exchange-based profiles). Specifically, moderate levels of POS reflect moderately positive interactions, which are expected to be reciprocated comparably. As a result, moderate levels of POS are likely to lead to commitments which sustain the connection between the individual and their focus of commitment, but are lacking in desire components. Finally, the unpleasant experience of receiving minimal POS will likely result in a desire to shirk away from their bond with the focal group (i.e., weak commitment profiles), as reciprocating non-positive interactions are likely to result in weak connections. Consequently, hypothesis 2 is: Value-based profiles will be associated with higher levels of POS compared to (a) exchange-based profiles and (b) weak commitment profiles. Exchange-based profiles will be associated with higher levels of POS compared to (c) weak commitment profiles.

1.3.1.3 Individualism/Collectivism

Much has been written about the cultural syndromes of individualism/collectivism (Hofstede, 2001), where the former reflects a definition of the self which is defined *independently* of the in-group, while the latter refers to a self-definition that develops *interdependently* of the in-group (Markus & Kitiyama, 1991; Triandis, 1995). That is, individualists pursue idiosyncratic goals above group goals, whereas group-goals are superordinate to individual goals for collectivists. Collectivistic cultures tend to be people-oriented while individualistic societies are more task-oriented (Hofstede, 1980). Thus, individualists may be more likely to have transactional relationships, while collectivists rely more heavily on moral obligations (Triandis, 1995). These cultural syndromes can be measured both at the individual and the group-level, and these cultural values can vary even within sub-populations (Triandis, 1995). As a result, many view individualism/collectivism as much of a cultural syndrome as it is a dispositional trait (Hui & Triandis, 1986; Wagner, 1995). When individualism and collectivism are assessed at the individual-level (as is done in this study), these variables are referred to as idiocentrism (individualism measured at the individual-level) and allocentrism (collectivism measured at the individual-level). Additionally, there is debate in the literature whether idiocentrism and allocentrism are distinct constructs or a single construct on opposite dimensions of the same continuum (Hofstede, 2000; Triandis, 1995). However, I only investigate a single measure of idiocentrism as it has had a longer history in the literature (Triandis, 1995), and a majority of acquired data sets only assessed idiocentrism.

Many have discussed implications of cultural syndromes on commitment (Bergman, 2006; Fischer & Mansell, 2009; Meyer et al., 2012b; Wasti, 2003; Wasti & Onder, 2009), though there is still not clear consensus on how the two function. That is to say, some view cultural syndromes as predictors of commitment mindsets (Meyer et al., 2012b), while others view them as moderators of the (1) antecedent-commitment relationship, and/or (2) the commitment-outcome relationship (Wasti, 2003; Wasti & Onder, 2009). That said, this meta-analysis is a test of many of Meyer's commitment profile predictions; therefore, in accordance with Meyer et al. (2012b), I conceptualize individualism/collectivism as a base of commitment.

Meyer et al. (2012b) demonstrated significant meta-analytic effects of these cultural syndromes on commitment mindsets as well as provided rationale for these main effects. Specifically, they predicted that collectivism would lead to greater AC and NC (compared to individualistic societies). These predictions were based on Boyacigiller and Adler's (1991) assertions that employees in individualistic cultures might become committed because of task facets (e.g., job context and pay/promotion satisfaction), whereas collectivistic cultures may develop commitment through moral and social facets (e.g., the job role and supervisor/colleague satisfaction). Additionally, because collectivists are more group-oriented, the obligatory feelings associated with promoting the in-group and maintaining in-group harmony may lead to greater levels of AC and NC as both mindsets facilitate group goals, which is promoted among collectivists (Randall, 1993).

Consistent with these predictions, Meyer et al. (2012b) found that individualism related negatively to AC (r = -.36, p < .01); individualism related negatively to NC (r = -.36, p < .01); and CC did not significantly relate to individualism. Additionally, cultural values explained a large portion of the variance in NC, which has been the most complex mindset to assess (Bergman, 2006; Meyer & Parfyonova, 2010). Meyer et al. (2012b) concluded that more work is needed to investigate the effects of these cultural values on profiles (as opposed to mindsets) of commitment. For example, both Germany and Middle Eastern countries had high levels of NC, however Germany had high levels of AC as well as high levels of NC (low levels of CC), while Middle Eastern countries had high levels of both NC and CC (low levels of AC). Thus, the phenomenological experience of commitment may be distinct in these different countries depending on whether NC is paired with AC or CC

Applying Meyer et al.'s (2012b) findings to profiles of commitment, allocentrists are expected to develop value-based profiles and idiocentrists are expected to develop exchange-based profiles. This is because allocentrists develop deeper relationships with individuals in their in-group, and have a greater sense of moral and value-based obligations than do idiocentrists (Triandis, 1995). Idiocentrists on the other hand develop more transactional relationships. Likewise, value-based commitments are expected to be associated with higher levels of allocentrism compared to exchange-based commitments, as allocentrism promotes moral and value-based attachments, while idiocentrism (low levels of allocentrism) promotes more functional attachments based on a continued exchange of services and goods. And finally, allocentrism should have the weakest

relationship with the weak commitment profiles. Consequently, hypothesis 3 is: Value-based profiles will be associated with higher levels of allocentrism compared to (a) exchange-based profiles. Both (a) value-based and (b) exchange-based profiles will have higher levels of allocentrism compared to weak profiles of commitment.

1.3.1.4 Psychological Contracts

Psychological contracts refers to "an individual's beliefs regarding the terms and conditions of a reciprocal exchange agreement between that focal person and another party," (Rousseau, 1989, p. 123). Psychological contracts are initiated when an individual believes that an organization will reciprocate in like manner to contributions provided by the focal person, irrespective of whether or not the norm for reciprocity has been made explicit and was agreed upon. The norm of reciprocity functions as the catalyst for expected returns on investments in psychological contracts.

Rousseau (1989) outlines a number of pertinent elements of psychological contracts, including (but not exclusive): (1) a belief in reciprocal relationships where one party has provided some service or goods in exchange for a promise that will be fulfilled at a later date; (2) the promise and the consideration are subjectively defined; (3) whether or not the psychological contract is fulfilled has implications for future trust and identification with target of the psychological contract.

A failure to meet contract terms is considered a contract breach which can be interpreted as violation under some circumstances. Breach and violation differ in that a breach is the actual contractual break while a violation is the interpretation that the breach is harmful to the relationship (Zhao, Wayne, Glibkowsky, & Bravo, 2007). Zhao

et al. (2007) found that the violation of psychological contracts had many organizational implications, though most relevant to this discussion was that psychological contract violation related significantly to AC (ρ = -.38). Additionally, McInnis et al. (2009) demonstrated a moderate positive relationships between psychological contract fulfillment and AC and (to a slightly lesser extent) NC. Theoretically, the norm for reciprocity would suggest that individuals who have been provided with valued resources (i.e., their psychological contracts have been fulfilled) would seek to return the favor by demonstrating a greater bond with the focus of the contract. Additionally, employees often attribute anthropomorphic characteristics to the organization based on their perceptions of their supervisor (Hambrick & Mason, 1984; Rhoades & Eisenberger, 2002). Thus, when an employee's *supervisor* fulfills a psychological contract, it is viewed as if the *organization* has fulfilled those contracts. Subsequently, employees are expected to desire and feel indebtedness to reciprocate for that exchange of goods (McInnis et al., 2009).

To relate these concepts back to profiles, individuals who have high psychological contract fulfillment would be likely to respond positively and express attachments based in values (i.e., value-based commitment profiles), due to their desire to reciprocate. That is, the positive experience of having one's psychological contract fulfilled elicits a desire to respond positively. Individuals who believe that only some of their psychological contracts have been fulfilled will bond to their organization out of compulsion to fulfill their preconceived obligations or maintain the needed quid pro quo relationship (i.e., exchange-based commitment profiles). That is to say, moderate

psychological contract fulfillment reflects a moderate provision of resources, albeit simultaneously being a moderate contract breach. Employees may interpret this as the organization's attempt to merely maintain a functional relationship, and nothing more. By only partially fulfilling a psychological contract, the organization demonstrates neither that they seek the relationship to be terminated, nor that they wish that the relationship to develop further. As a result, employees are expected to respond in kind with a transactional form of commitment. Finally, individuals that perceive little or no psychological contract fulfillment would respond ambivalently or wish to remove themselves from their organization (i.e., weak commitment profiles), as the lack of provided resources reflects a lacking desire to even maintain the current relationship. As a result, hypothesis 4 is**:** Value-based profiles will be associated with higher levels of psychological contract fulfillment compared to (a) exchange-based profiles and (b) weak commitment profiles. Exchange-based profiles will be associated with higher levels of psychological contract fulfillment compared to (c) weak commitment profiles.

1.3.2 Antecedents of Commitment Mindsets

Antecedents are more distal predictors of commitment (Meyer et al., 2002). I distinguish between two types of antecedents: individual characteristics and workplace variables. Individual characteristics are demographic variables while workplace variables describe aspects of one's work arrangements.

1.3.2.1 Individual characteristics

1.3.2.1.1 Age

Age has been found to be positively related to all three mindsets of commitment (AC: ρ = .15; NC: ρ = .12; CC: ρ = .14; Meyer et al., 2002), though the little theoretical reasoning that has been devoted to explain this effect is equivocal (Allen & Meyer, 1993). Some theories of this relationship include: (1) the act of aging may prompt individuals to become committed (maturation effect); (2) older employees have more pleasant experiences at work (experiences effect); or (3) there are generational differences in commitment (cohort effect; Allen & Meyer, 1993). An alternative explanation may be that all three interact to cause commitment. However, no longitudinal studies have investigated these propositions. That said, results have consistently shown that all three mindsets of commitment are positively associated with age (Allen & Meyer, 1993; Meyer et al., 2002). Thus, higher levels of all three mindsets individually are associated with older ages. Subsequently, I would expect that both the value-based and exchange-based profiles (i.e., high levels of at least one mindset) would be composed of older employees, while the weak-commitment profiles (low or moderate levels of all three mindsets) are likely composed of younger employees. Thus, I offer the following Hypothesis and research question. Consequently, hypothesis 5 (a/b) is: (a) Value-based and (b) exchange-based profiles are expected to be composed of older participants compared to weak commitment profiles. And research Question 2 is: Will value-based and exchange-based profiles differ in participant age?

1.3.2.1.2 Sex

Sex has been investigated as a predictor of commitment, although little theoretical reasoning has been provided. Meyer et al. (2002) meta-analytically examined the relationships between sex and the three mindsets of commitment and found that sex had a non-significant relationship with all three mindsets. I seek to replicate these findings with profiles of commitment, to ensure that group differences are not observed in person-centered analyses. Therefore, hypothesis 6 is: Value-based, exchange-based, and weak commitment profiles will not differ by sex.

1.3.2.1.3 Parental and marital status

Regarding parenthood, Heilman and Okimoto (2008) found that parents displayed weaker organizational commitment, though the study focused on explaining the pay-gap between mothers and non-mothers and did not include fathers. Additionally, the measure of commitment was a three item general commitment measure. However, Mayer and Schoorman (1998) suggested that individual characteristics that decrease a candidate's job mobility would subsequently increase a candidate's commitment. Thus, children may make one less mobile due to familial requirements to remain in the same area, suggesting that children would increase one's likelihood to commit (although it is unclear which mindset it would support). Likewise, being married would also bind an individual moreso than single individuals due to their lower mobility (e.g., community investments, spouse's work, etc.).

Meyer et al. (2002) found a weak relationship between AC and marital status. Parenthood was not investigated. It seems likely that individual characteristics which

support developing long term attachments would also be likely to help develop positive organizational bonds (Mayer & Schoorman, 1998). For example, working may provide the means to sustain their family, as work functions as a way to provide for their dependents. Consequently, individuals that have families have less job mobility, as they have to provide for their multiple dependents. Thus like age, being married and having children will most likely support higher levels of some form of commitment (i.e., value or exchange-based profiles) compared to weak commitment profiles. Consequently, hypothesis 7 (a/b) is: (a) Value-based and (b) exchange-based profiles will have a higher percentage of married participants compared to weak commitment profiles. And hypothesis 8 (a/b) is: (a) Value-based and (b) exchange-based profiles will have a higher percentage of participants that are parents compared to weak commitment profiles.

1.3.2.1.4 Education

Based on this job mobility principle, Mayer and Schoorman believed that greater education would provide greater job mobility, subsequently diminishing commitment. Similar to their predictions, the authors found that education negatively predicted value commitment (a precursor to Meyer and Allen's conceptualization of AC), and had a strong negative correlation with their continuance commitment (a precursor to Meyer and Allen's conceptualization of CC; Meyer & Herscovitch, 2001). Meyer et al. (2002) meta-analytically examined the effect of education and found that education had a slight negative relationship with the CC mindset, but was unrelated to all others. In other words, individuals with more advanced educations would be less likely to have CC, as the *need* to remain is less present.

Applying the job mobility principle to profiles of commitment, greater education reflects a greater job qualification, making individuals less dependent on their organization to provide for their transactional needs. That is, greater education means either (a) employees will commit because they enjoy their work (Herrbach, 2006) or experience value congruency (Ashforth & Mael, 1989); or (b) individuals will not commit because neither of those criteria are met. However, neither value nor weak commitment profiles are committing out of necessity, like the exchange-based individuals. Therefore, it is likely that both the value and weak commitment profiles will have greater levels of education compared to the exchange-based profiles, as education would serve as a remedy to their transactional bond. That said, it is unclear if value-based or weak commitment profiles will be associated with greater education. As a result, hypothesis 9 (a/b) is: (a) Value-based and (b) weak commitment profiles will have higher levels of education compared to exchange-based profiles. And research question 3 is: Will value-based profiles and weak commitment profiles differ based on education?

1.3.2.1.5 Positive affect and negative affect

Two dispositional variables that have received some theoretical attention are positive (PA) and negative (NA) affectivity. Respectively, they reflect an inherent penchant for positive responses or negative responses to stimuli or events (Brief & Weiss, 2002). PA is associated with a hypersensitivity to positive stimuli while NA is associated with a hypersensitivity to negative stimuli. A handful of studies have investigated the connection between PA/NA and commitment mindsets and most have

found that PA positively predicts all commitment mindsets while NA negatively predicts all commitment mindsets due to a negative world-view (Cropanzano, James, & Konovsky, 1993; Kim, Price, Mueller, & Watson, 1996; Thoresen et al., 2003). That is to say, individuals with greater PA are more likely to make positive evaluations of their work, which includes the bonds they make as well (Herrbach, 2006).

Bergman, Benzer, & Henning (2009) theoretically linked both PA and NA to the development of specific mindsets based on Weiss and Cropanzano's (1996) affective events theory (AET). In brief, AET proposes that workplace stimuli serve as a basis for determining organizational attitudes (e.g., job satisfaction), but that relationship is mediated by affective reactions to stimuli. For example, an individual participates in a number of workplace events that take place over time (stimuli), and individuals with trait PA (or trait NA) are predisposed to respond positively (or negatively) to those stimuli. Over time, the predominantly positive emotional response will lead to a positive cognitive appraisal of the workplace (attitudes). Thus, Bergman et al. (2009) applied these principles to organizational commitment. That is, individuals with trait PA (or NA) will more positively (or negatively) evaluate their workplace based on their dispositional traits, fostering more positive (or negative) commitments.

In regards to specific mindsets, AC is theorized to develop, in part, based on positive workplace experiences (Bergman et al., 2009; Meyer & Allen, 1997; Stinglhamber & Vandenberg, 2003); if individuals have innate tendencies to interpret stimuli positively, they might also have an innate tendency to develop AC, as it reflects a positive workplace evaluation (Herrbach, 2006). Likewise, NC was predicted to develop

from positive experiences as well; however, PA may result in a felt obligation because some individuals feel a sense of indebtedness to an organization that provides them with organizational resources (Eisenberger et al., 2001). As a result, both desire and transactional bonds are expected to have a positive association with PA. NA, however, may relate positively to CC due to the negative interpretations made by individuals with high levels of NA. Therefore, CC is likely to be positively associated with NA because CC is rooted in compulsory, although not necessarily enjoyable, bonds. That said, initial empirical evidence suggests otherwise, as all three mindsets of commitment are positively associated with PA and negatively associated with NA (Thoresen et al., 2003). Thus, any bond, whether it be desire or transactionally based, is likely to be positively associated with PA and negatively associated with NA. This may be because PA produces a world-view such that even a functional exchange of goods without any meaningful value congruency can still be evaluated positively.

Applying this same logic to profiles of commitment, value-based and exchange-based commitments are likely to be associated with higher levels of PA compared to weak commitment profiles, as both reflect varying degrees of attachment based in positive experiences. Regarding NA, the reverse is most likely true: weak commitment profiles will likely be associated with higher levels of NA compared to value-based and exchange-based commitments. Similarly, as value-based profiles reflect a more positive workplace experience, it is expected to be associated with higher levels of PA (and lower NA) compared to exchange-based profiles. Therefore, hypothesis 10 is: (a) Value-based and (b) exchange-based profiles will have higher levels of PA, compared to weak

commitment profiles. Value-based profiles will have higher levels of PA, compared to (c) exchange-based profiles. Additionally, hypothesis 11 is: Weak commitment profiles will have higher levels of NA, compared to (a) value-based profiles and (b) exchange-based profiles. Exchange-based profiles will have higher levels of NA, compared to (c) value-based profiles.

1.3.2.2 Workplace Variables

Like my predictions for bases of commitment, work characteristic hypotheses follow a consistent paradigm as well. All hypotheses are predicated on the norm of reciprocity (Gouldner, 1960), whereby the more satisfied/content individuals feel at their work, the more likely they are to reciprocate with value and desire based commitments. The positive workplace experiences engender a need to respond in a like manner; therefore, individuals respond with a positive attachment to their organization, which is rooted in desire (Eisenberger et al., 2001). However, with lower satisfaction, individuals are expected to experience more transactional bonds to their organization, because the desire to reciprocate and remain with the organization weakens. And at low or absent levels of work enjoyment, individuals feel ambivalent or seek to remove themselves entirely of their relationship, responding with weak commitment profiles.

1.3.2.2.1 Job security

Job security refers to the employee's degree of certainty that the organization will maintain the employment relationship (Probst, 2002). This has had little theoretical discussion in the commitment literature. However, it seems likely that job security would relate to certain mindsets. Based on the norm of reciprocity (Goulder, 1960),

organizational support theory (Rhoades & Eisenberger, 2002), and social exchange theory (Emerson, 1976), individuals seek to reciprocate positive interactions in like measure. Thus, when the organization demonstrates it is committed to its employees (i.e., job security), individuals are likely to reciprocate with higher AC and NC, similar to organizational support.

Assuming that individuals who have high job security feel that the organization has invested in them, these employees are then expected to return the investment back into the organization with value-based or exchange-based profiles. That is to say, job security is an added resource which can be repaid via value or transactionally-based bonds (Eisenberger et al., 2001). Therefore, both value and exchange-based profiles are expected to have higher levels of job security, compared to individuals with weak commitment profiles, as the weak commitment profiles are likely responding, in part, to a lack of organizational resources (i.e., job security). Likewise, value-based profiles are expected to have higher levels of job security, as more organizational resources are likely to cause more positive evaluations of ones work and help contribute to the development of more meaningful, value-based bonds (Eisenberger et al., 2001; Hobfoll, 1989; Meyer & Parfyonova, 2010). Consequently, hypothesis 12 is: Value-based profiles will have higher levels of job security, compared to (a) exchange-based profiles and (b) weak commitment profiles. Exchange-based profiles will have higher levels of job security, compared to (c) weak commitment profiles.

1.3.2.2.2 Pay satisfaction

As with job security, social exchange theory posits that individuals wish to repay positive interactions with positive or obligatory responses (Emerson, 1976). Subsequently, pay satisfaction may elicit higher levels of value and exchange-based profiles. Therefore, both value and exchange-based profiles are expected to have higher pay satisfaction than weak commitment profiles. Therefore, hypothesis 13 is: (a) Value-based and (b) exchange-based profiles will have higher levels of pay satisfaction, compared to weak commitment profiles.

1.3.2.2.3 Coworker/Leader satisfaction

Individuals have an innate drive to belong and socialize with others which is a large determinant of both behaviors and attitudes (Baumeister & Leary, 1995; Gagne & Deci, 2005; Tajfel & Turner, 1979). Thus, when the social components of work are satisfactory, employees reciprocate with higher levels of value-based profiles, as they most strongly reflect a positive evaluation of one's work (Herrbach, 2006). That is to say, employees will seek repayment of their positive workplace experience with a desire-based profile. Following this, moderate coworker/leadership satisfaction is likely to lead to exchange-based profiles as the functional relationship is still mutually beneficial, though not entirely fulfilling. Thus, employees will seek to maintain their transactional relationship by committing with exchange-based profiles. And finally, weak commitment profiles are expected to be associated with the lowest levels of coworker/leadership satisfaction, as the poor social aspects of work are likely to drive employees to disassociate with the focus of their commitment. Therefore, hypothesis 15

is: Value-based profiles will have higher levels of coworker satisfaction, compared to (a) exchange-based profiles and (b) weak commitment profiles. Exchange-based profiles will have higher levels of coworker satisfaction, compared to (c) weak commitment profiles. And hypothesis 16 is: Value-based profiles will have higher levels of leadership satisfaction, compared to (a) exchange-based profiles and (b) weak commitment profiles. Exchange-based profiles will have higher levels of leadership satisfaction, compared to (c) weak commitment profiles.

1.3.2.2.4 Overall job satisfaction

Overall job satisfaction will be investigated as a predictor of commitment. Previous research has not been able to isolate overall job satisfaction as either a predictor or outcome of organizational commitment (Meyer et al., 2002), because most research conducted on this topic has been cross-sectional and has been unable to pinpoint the cause or the effect (Shadish et al., 2002). However, meta-analytic results have demonstrated a moderate relationship between job satisfaction and AC and NC (Cooper-Hakim & Viswesvaran, 2005; Harrison, Newman, & Roth, 2006; Meyer et al., 2002). Likewise, I expect overall job satisfaction to follow the same pattern as was predicted for the various components of job satisfaction (Hypotheses 14-16). Therefore, hypothesis 17 is: Value-based profiles will have higher levels of overall job satisfaction, compared to (a) exchange-based profiles and (b) weak commitment profiles. Exchange-based profiles will have higher levels of overall job satisfaction, compared to (c) weak commitment profiles.

1.3.2.2.5 Organizational size

Organizational size refers to the number of employees in the entire organization. Organizational size may be interpreted negatively because being associated with such a large organization may make employees feel like a small cog in a giant network (i.e., either exchange or weak commitment profiles). That is, individuals often feel impersonal among large groups (Karau & Williams, 1993) and would therefore feel unfulfilled with many of the necessary social components likely to be unavailable in larger organizations. Thus, employees in large organizations may be more likely to view their relationship with their organization transactionally or feel little bond at all (e.g., exchange or weak commitment profiles). Alternatively, organizational size may be interpreted positively as employees may desire larger organizations to accomplish their work agenda. For example, an academic researcher may seek a larger university in order to have access to more research funds that are often not present at smaller universities. Thus, the large organization, and only the large organization, can provide them with the resources necessary for their work, supporting a desire to remain with the company. Although this example is specialized, this could also be true in a number of different fields, and be equally applicable to other types of resources (e.g., 401K, daycare, employee discounts, etc.).

If organizational size is interpreted negatively, then I would expect the value-based profiles to be associated with the smallest organizations, while exchange-based profiles and weak-commitment profiles to be associated with the largest organizations. Thus, a negative interpretation of organizational size would reverse the order of my job

satisfaction hypotheses, whereby higher levels (i.e., high satisfaction) are associated with value-based profiles. However, if organizational size is interpreted positively, value-based profiles are predicted to be associated with the largest organizations, while exchange-based profiles and weak commitment profiles are expected to be associated with the smallest organizations. Consequently, I offer the following alternative hypotheses: As a result, hypothesis 18.1 is: Value-based profiles will be associated with *smaller* organizations, compared to (a) exchange-based profiles and (b) weak commitment profiles. Likewise, exchange-based profiles will be associated with smaller organizations compared to (c) weak commitment profiles. While hypothesis 18.2 is: Value-based profiles will be associated with *larger* organizations, compared to (a) exchange and (b) weak commitment profiles. Likewise, exchange-based profiles will be associated with larger organizations compared to (c) weak commitment profiles.

2. METHOD

This meta-analysis was conducted in four stages: (1) I requested archival data sets from commitment researchers; (2) a multi-level LPA was conducted on the archival data; (3) a means analysis was conducted on all the data sets separately to compute *d*-values; (4) the *d*-values were combined in a meta-analysis.

2.1 Archival Data Request

I first sought out researchers with access to archival commitment data sets. The only inclusion criterion was that the three mindsets of commitment must be assessed simultaneously using any one of the Meyer and Allen measures (e.g., Meyer & Allen, 1991; 1997; Meyer, Allen, & Smith, 1993). However, almost all data sets included additional outcomes and/or predictors which were analyzed for the meta-analysis portion of this paper. A fourfold approach was used to identify researchers containing useful information for the present meta-analysis. (1) Keyword searches of the PsycINFO and ABI/Inform databases were performed using different keywords (commitment profile (s), profile(s) of commitment). (2) The 2000–2010 programs for Society for Industrial and Organizational Psychology and Academy of Management conferences were searched for commitment researchers. (3) The reference section of Meyer et al.'s (2002) meta-analysis was examined for additional researchers to contact. Finally, (4) a snowball sampling procedure was conducted whereby researchers contacted via one of the first three options were asked to forward the request to any other researchers who might have data sets relevant to this study. A total of 141 researchers were contacted which yielded 40 independent samples that assessed the three mindsets of commitment simultaneously.

Forty archival data sets were acquired (N = 16,052) from researchers (see Table 1 for a summary of data sets).

2.2 Latent Profile Analysis

Second, a multi-level LPA was conducted on the obtained data sets to determine the proper classification of each individual. LPA is a model based cluster analytic technique that attempts to classify individuals into meaningful and unique categories using person-centered analyses. LPA has been known in the literature as latent class cluster analysis (Vermunt & Magidson, 2002) as well as finite mixture modeling (McLachlan & Peel, 2000). It is a mixture modeling technique because the data are not sampled from a population with a single probability distribution; rather, the population being sampled is composed of a mixture of distributions with each cluster having its own set of parameters. This means that a single data set may have a set of parameters for one cluster but a completely separate set of parameters for a different cluster. In other words, the clusters should reflect the different sets of parameters that exist in the general population.

The goal of LPA is to identify groups of similar observations that are equivalent on a variety of cluster indicators. Like other model-based techniques (e.g., exploratory factor analysis, confirmatory factor analysis), LPA has both observed and latent variables. However, LPA differs from traditional factor analytic techniques where the observed indicators are measured variables and the latent variables represent a global construct with which the measured indicators have in common (Bollen, 2002). Instead, the latent variables in LPA represent latent cluster membership.

LPA is developed with a *reflective* indicator model, whereby the latent construct causes the observable manifestations which are subsequently measured (Edwards, 2001; Edwards & Bagozzi, 2000; Jarvis, MacKenzie, & Podsakoff, 2003; MacCallum & Browne, 1993; Treiblmaier, Bentler, & Mair, 2011). For example, openness is conceptualized as a latent construct that causes people to be willing to try new things and be open to new ideas; each behavior is a reflective indicator of the latent construct openness because the latent personality construct is the cause of the behavior. If the latent level of openness changes, then subsequent openness-relevant behaviors will also change. This is also true regarding LPA. That is, the latent class to which a given person belongs causes his/her observed scores on the measured indicators. In other words, it is not the classification, but the true class membership that causes the behavior (i.e., commitment). For example, individuals that belong to the latent "high commitment profile" will have high levels of all three mindsets of commitment (Meyer et al., 2012a); these individuals inherently belong to the latent high commitment profile, which subsequently causes their high scores on all three mindsets of commitment.

2.2.1 Alternatives to LPA

There are three primary alternatives to using LPA: median split, interactions, and traditional cluster analysis. Median split involves classifying people into groups based on whether they are high (above the median) or low (below the median) on each of the measured indicators. Once these groups are defined, ANOVA is performed to determine if the various groups differ on a meaningful outcome or predictor. However, there are a number of issues associated with this approach, primarily of which is the dependency on

a given sample's median (Maxwell & DeLaney, 1993). That is, because the median may fluctuate from sample to sample, results are incomparable across different contexts. Additionally, there may be significant heterogeneity of variance within each of the high/low groupings, especially when using continuous variables. That is to say, the individual who scored one point above the median and the highest scoring individual are categorized as the same. Additionally, the individual scoring one point above the median and the individual scoring one point below the median are likely to have more in common than all individuals above the median. Such categorization for commitment is arbitrary, as there is no theoretical reason to pick the median; it is just as theoretically meaningful to split the data into eight subgroups as it is to split it into two. Further, such splits are statistically problematic (MacCallum, Zhang, Preacher, & Rucker, 2002).

A second alternative is the use of interactions. A researcher can center all measured indicators, multiply each possible combination of variables, and regress them on outcomes of interest (Keith, 2006). If a significant interaction is present among the variables, then one interprets the various levels of the interaction as emanating from a single probability distribution (e.g., Gellatly, et al., 2006; Jaros, 1997). However, there are four concerns with this alternative. First, if the number of measured indicators is greater than two, interpretation of the various combinations of interactions becomes difficult, and if the indicators are four or more, interpretation is nearly impossible. For example, four measured indicators of cluster membership requires 24 possible interactions, with the potential for a four-way interaction (which would be the strongest proof that the various profiles are distinct). Second, the interaction approach is variable-

centered, as opposed to person-centered. That is, the interactions are assessing possible combinations in ways in which the *variables* can interact. It is unclear if *individuals* respond in the same way that the variables interact. Specifically, a significant interaction of two variables is a between-subjects analysis and does not demonstrate how *individuals* (i.e., within-subjects analysis) respond to the various stimuli (Meyer et al., 2013). Likewise, the interaction-approach does not address the homogeneity/heterogeneity of groups, like the median-split approach. Third, the interaction approach also assumes a single probability distribution within a given sample, which is often not accurate (Meyer et al., 2013). This biases the regression coefficients, causing researchers to make inaccurate predictions. And finally, the interaction approach has low power to detect significant effects when using many interacting predictors, causing a greater likelihood of making Type II errors (Cohen, 1994).

The final alternative is traditional cluster analytic techniques, which takes a person-centered approach. This exploratory method examines consistent patterns among *individuals* (as opposed to *variables*) and attempts to group them into homogenous subsets, whereby the within-group variance is minimized and between-group variance is maximized (Kaufman & Rousseeuw, 1990). An advantage over previously mentioned methods is that traditional cluster analytic techniques can account for subgroups that are moderate on the variables of interest, ignored completely in median-split approaches and difficult to account for in interaction approaches. For example, a moderate profile (i.e.,

moderate levels of all three mindsets) is impossible to detect using a median-split approach, as the groups are perforce defined as either high or low.

There are a number of different cluster analytic methods (for an overview, see Kaufman & Rousseeuw, 1990), however, most analyses determine the best fitting cluster structure based on theory and subjective judgments to determine how many clusters are present and how to interpret each cluster (Pastor et al., 2007). That said, recent work by Steinley and Brusco (2011) attempts to provide a number of statistical criteria to best determine the appropriate cluster structure (e.g., CH-Index: Calinksi & Harabasz, 1974). However, many of these statistics can only be utilized with certain types of data (Milligan & Cooper, 1985), leaving researchers to rely on their best judgment and replication as proof of their findings. Thus, while cluster analysis does take a person-centered approach to analysis, it is still riddled with clinical judgments which can often be inaccurate (Dawes, Faust, & Meehl, 2002).

That said, cluster analysis does not assume all individuals come from a single probability distribution. That is, multiple subsets of individuals can be accounted for within a single sample, unlike the variable-centered approaches. Additionally, cluster analysis does not have diminished power to detect significant effects, minimizing the likelihood of making a Type II error.

2.2.2 Advantages of LPA over other alternatives

Building on traditional cluster analysis methods, LPA has all the same advantages of cluster analytic techniques but LPA assigns cluster membership based on posterior probabilities that determine the likelihood of a set of scores belonging to a

given cluster. Such probability-based classification prevents biasing the estimated cluster-specific means, relative to other methods, such as *K*-means cluster analytic techniques (Magidson & Vermunt, 2002). LPA also attempts to minimize the subjective judgments by providing a variety of different statistical criteria to inform the researcher of the best fitting model (i.e., determine how many clusters best fit the given data; Pastor et al., 2007). Researchers can evaluate parameter estimates by using log-likelihood estimates, sample size adjusted Bayesian information criterion (SABIC; Schwartz, 1978), the entropy statistic, and/or the bootstrap loglikelihood ratio test (BLRT; MchLachlan & Peel, 2000; Nylund, Asparouhov, & Muthen, 2007). These four criteria serve as the main statistical determinants of how many clusters one should retain and provide more objective criteria to base one's decision off of. Decisions should be made based on the results of all four tests while still accounting for theory and cluster sample size as well. Finally, because these model fit criteria can be universally used in all LPAs regardless of the type of data, this provides an added benefit above traditional cluster analytic techniques, and is why I utilized these procedures in this study.

2.2.3 LPA as Implemented in this Study

I analyzed the data using MPlus 6.0 Software with mixture and multilevel additions to complete the multilevel LPA. The criteria I used included the loglikelihood estimate, SABIC (Schwartz, 1978), BLRT (McLachlan & Peel, 2000; Nylund, et al., 2007), and the entropy statistic. Higher numbers for the loglikelihood estimates reflect better fit; clusters which maximized loglikelihood estimates were retained. SABIC is also used to compare models of varying clusters, where lower numbers reflect greater fit.

The advantage of SABIC over loglikelihood estimates is that it has a penalty for model complexity (Pastor et al., 2007). BLRT examines whether a model with *k* profiles demonstrates significant improvement in fit over a model with *k* -1 profiles. A significant *p*-value indicates meaningful improvement in fit (Nylund et al., 2007). Finally, the entropy statistic maximizes classification utility at higher values. In accordance with prior suggestions, the four criteria, theory, sample size, and cluster uniqueness were all taken into account to determine the appropriate number of clusters (Pastor et al., 2007).

The LPA was conducted in two steps. First, a LPA was conducted for each individual data set to determine how variant LPA results were for individual studies. Then, a multilevel LPA was conducted on the entire sample (*level 1* = individual level, *level 2* = data set level) to determine final cluster membership.

2.3 Means/SDs analysis

The third stage of these analyses entailed running a separate means (and *SD)* analysis for each of the 40 data sets contrasting each profile with each other on meaningful predictors, whereby commitment class membership was the grouping variable and the various predictors were used as the dependent variables. *Prima facie,* this test contradicts the theory behind our predictions, such that profiles should be the outcome and the predictors should be the independent variables. To maintain causal order, these hypotheses can be tested using odds-ratios in logistic regression, whereby continuous predictor variables are given an odds-ratio for how likely they are to predict a given dichotomous variable (e.g., commitment profile). Thus, the odds-ratio analysis

would maintain the causal order for the predictions: continuous antecedents predicting a dichotomous criterion. However, odds-ratios cannot be combined to provide meta-analytic effects, making it inaccessible for this study.

Although it does not follow the basic theoretical ordering of profiles and their antecedents/bases, using the means comparison is informative to help distinguish profiles from each other based on meaningful constructs, irrespective of the direction of the predictions. Further although theory has yet to develop hypotheses regarding the linearity/non-linearity of profile distinctions, this test will be able to detect such effects. Finally, these can be combined meta-analytically. Thus, I compared the profiles on various predictors using this means analysis. Once means and *SD*s were determined, I then calculated *d*-values for each profile comparison to be used in the meta-analysis.

2.4 Meta-Analysis

Finally, I meta-analyzed each of the *d*-values computed from the commitment cluster comparisons (stage 3). Because I collected archival data, I was able to conduct an individual corrections meta-analysis (ICMA) using Hunter and Schmidt's (2004) methods. This random effects model allowed for a correction for both sampling error and reliability in both the predictor (e.g., identification) and outcomes (e.g., profiles).

The ICMA itself was conducted in six stages (Hunter & Schmidt, 2004). First, to simplify analyses, I converted all *d*-values into *r*-values using the conversion ratio:

$$r = \frac{d}{\sqrt{(4 + d^2)}}$$

Next, a bare-bones meta-analysis was conducted which calculates an overall effect for each comparison, correcting for sampling error. Third, each individual sample was corrected based on its respective attenuation due to the predictor and criterion (un)reliability. The reliability estimates were determined based on coefficient alpha (internal consistency reliability) for the commitment profile and the predictors separately. Regarding the commitment reliability estimate, I assessed alpha for each study and for each of the three mindsets separately (as they factor onto separate latent variables [Meyer & Allen, 1997]). I then averaged these three reliability estimates for each study to calculate an overall estimate of reliability of commitment for each sample. For predictors, I assessed the alpha coefficient for each construct and study separately. Fourth, weights were calculated to determine each study's value to the overall meta-analytic estimate. This weight is a function of the attenuation factor (calculated in step three) and sample size. Fifth, each individually corrected value was averaged together based on the weights provided in step three to determine the overall effect and variances. Finally, all *r*-values were reconverted back into *d*-values to provide the meta-analytic estimates and variances for each comparison.

3. RESULTS

3.1 Summary of Published Literature Results

First, all published archival samples were evaluated by conducting a separate LPA on each data set. Once the proper cluster solution was determined, each sample's profile makeup was then interpreted to determine the types of commitment profiles which were found across the published samples. This analysis provided a baseline for comparison of my results to extant commitment literature.

Of the 23 archival data sets available for this study that have been published, most samples had the following profiles: low, medium, CC-Dominant, AC-Dominant, AC/NC-Dominant, and high commitment (Table 2 and Figure 3).The profiles Meyer et al. (2012) concluded were most common were parallel to the six profiles found in this archival analysis, whereby two were weak commitment profiles, two were value-based profiles and one was an exchange-based profile. Likewise, the classification of the individual samples revealed relatively low levels of variability among profile mean scores (Table 2). For most profiles, each of the three mindsets had a standard deviation below 0.50 (on a five-point likert scale) across data sets, while the standard deviation across all data sets (not only published) were 0.91, 1.00, and 0.87 for AC, NC, and CC, respectively.

3.2 LPA Results Across All Samples

Second, individual LPAs were conducted on each of the archival samples[4] separately to address the profile trends within each sample. This analysis provided a comparison to the multilevel LPA. Results from the individual LPAs revealed that a majority of data sets demonstrated optimal fit with five to seven profiles (Figure 4); again confirming Meyer et al.'s (2012a) assertions that the optimal cluster solution is most likely between five and seven clusters, with representation in all three categories of profiles (weak, exchange, and value-based profiles). Thus, there were not significant differences between the analysis including both published and unpublished studies and the analysis only examining published studies alone.

Additionally, a number of moderator analyses were conducted to determine if cluster membership differed based on substantive group-level variables. That is to say, this analysis addressed whether the profile presence for each study depended on some substantive moderating variable at the sample level (e.g., sample tenure, sample size, etc.). Table 3 displays the non-significant covariate analysis results which revealed that the studies did not differ on various moderator variables. Thus, cluster classification was not dependent on any study-level moderating variables.

3.3 Multilevel LPA Results

The final set of LPAs was conducted to assess final cluster fit across all 40 samples. Thus, all 40 data sets were entered into a single LPA which categorized individuals based on their relative endorsement of the three mindsets of commitment,

[4] Not only published studies

while still recognizing the multilevel aspects of the model (i.e., individuals nested within samples). Thus, individuals will be grouped based on both facets – their relative endorsement of the three mindsets of commitment in comparison to the other individuals within the given sample, as well as all other archival data sets. Consequently, this analysis will result in a cluster solution with a certain number of profiles; however, each individual sample may not contain all emerged profiles as both individual and study-level means are accounted for in this LPA.

LPA fit statistics for the multilevel model can be found in Table 4 and sample specific demographic information can be found in Table 5. Two through seven-cluster solutions converged with the data in the multilevel model, suggesting that eight or more profiles of commitment are not phenomonologically experienced (Table 1). I examined the BLRT results to determine the best fitting cluster solution in accordance with Nyulund et al.'s (2007) suggestions; however, the results were inconclusive. Each of the two-cluster through seven-cluster solutions provided a significant BLRT which would suggest that adding an additional cluster would provide better fit to the data. That said, the BLRT is known to overextract clusters in large data sets (Pastor et al., 2007) like this study (N = 16,052). Therefore, I did not focus on this significance test as it was likely biased due to a tendency to overextract. The loglikelihood and the SABIC fit statistics revealed that both a three and a five cluster solution fit the data well, as reflected by the sharp shift in slope as the three and five cluster solutions were added (see Figures 5 and 6). That said, SABIC values were lowest at a five-cluster solution. Additionally, entropy

values (Figure 7) were maximized with a five-cluster solution as well. Consequently, I retained a five-cluster solution as the best fitting cluster structure.

Means and posterior probabilities for the five-cluster solution can be found in Tables 6 and 7 (respectively). All posterior probabilities were above .81, reflecting a significant likelihood of correct profile classification across all individuals. While there are no standard cut-off values for this analysis, values above 0.80 indicate acceptable classification (Muthen & Muthen, 2000-2010). That is to say, the fit indices strongly suggested a five-cluster solution optimizes fit to the data, while the posterior probabilities indicated the quality of such a solution. The results here revealed best fit with a five cluster solution and moderately strong classification with the posterior probabilities.

Based on the respective mean mindset values and their within and between mean mindset ranking, the five clusters were interpreted as follows: (1) low, (2) moderate, (3) AC-dominant, (4) high, and (5) AC/NC-dominant profiles. Thus, three profiles are considered value-based profiles (i.e., AC-dominant, high, and AC/NC dominant), two profiles are weak-based profiles (low and moderate), and none of the profiles were exchange-based. The majority of participants were clustered in the weak, moderate, or AC-dominant commitment profiles, while a small minority of participants were clustered in the AC/NC-dominant and High commitment profiles (Figure 8). Surprisingly, the CC-

Dominant profile was not found in the multilevel analysis, despite appearing relatively consistently among the individual-level sample LPAs (Table 2 and Figure 3).[5]

Thus, in answer to research question 1, weak profiles (low, medium) and value-based profiles (high, AC-dominant, AC/NC-dominant) emerged, but exchange-based profiles (e.g., CC-dominant, CC/NC-dominant) did not. Because of this, some of the hypotheses cannot be evaluated (e.g., Hypotheses and 2a) because they involve comparisons with exchange-based profiles. Hypotheses about value-based and weak profiles (e.g., Hypotheses 1b and 2b) will be evaluated in the following meta-analytic results.

3.4 Meta-Analytic Results: Bases of Profiles

3.4.1 Organizational Identification

Four data sets were provided for the organizational identification meta-analyses (Table 8). Consistent with Hypothesis 1b, all value based profiles demonstrated higher levels of organizational identification than the weak-commitment profiles. In fact, delta values can be considered extremely large (Cohen, 1990); all were larger than 1, with some values larger than 2. For example, the comparison between the AC/NC-Dominant profile and the weak commitment profile had a delta value of 4.77. Further, none of the confidence intervals comparing the value and weak-based profiles overlapped with zero, indicating the significance of such effects (Hunter & Schmidt, 2004). Additionally, for a

[5] In order to assure that the correct cluster solution and profile interpretations were made, a colleague was asked to determine the optimal cluster fit and define the cluster interpretations based on the output provided from the three sets of LPAs that were conducted. This was done to replicate the same conclusions which I gleaned from the LPA fit statistics and mean estimates. She confirmed the same classifications as the results found above.

number of the comparisons, the organizational commitment profile clustering explained 100% of the variance in identification, indicating the utility of identification as a predictor of organizational commitment.

Meyer et al.'s (2002) meta-analysis on commitment did not assess organizational identification, so I am unable to provide any comparison to previous meta-analytic estimates.

3.4.2 Perceived Organizational Support

Hypothesis 2b predicted that the value-based profiles would be associated with higher levels of POS, in comparison to the weak commitment profiles. Three data sets were provided that contained POS as a predictor of commitment. Consistent with my predictions, results revealed significantly higher levels of POS for the value-based profiles than the weak commitment profiles (Table 9). Again, deltas were very large, even for the within-category comparisons. For example, the AC-dominant and AC/NC-dominant profile comparison had a large delta value of 1.04, and the delta for the comparison between the moderate and low profiles was 0.67. However, the High commitment profile did not have a large enough sample to meta-analyze. That is, not all three of the samples contained a high-commitment profile.[6] Again, all confidence intervals did not overlap with zero, indicating that there are meaningful distinctions in POS based on organizational commitment profiles.

[6] In the multilevel LPA, the data was analyzed across all data sets. Thus, it was possible for the less common profiles (e.g., high and AC/NC-Dominant profiles) to not be found in all data sets.

Meyer et al.'s (2002) variable-focused meta-analysis demonstrated that POS had a positive relationship with AC and NC (ρ =.65; ρ =.47, respectively) but a slight negative relationship with CC (ρ = -0.11). When converted to deltas, these values range from -0.22 to 1.62; however, when examining profiles of commitment here, delta values ranged from 0.67 to 2.60 with a majority of deltas greater than 1. Thus, the joint effects of the three mindsets resulted in larger effect sizes than the variable-focused approach demonstrated.

3.4.3 Idiocentrism

Hypothesis 3b predicted that value-based commitments would demonstrate lower levels of idiocentrism in comparison to weak commitment profiles. Results revealed that the moderate and the weak commitment profiles demonstrated the highest levels of idiocentrism, while the value-based profiles demonstrated lower levels of idiocentrism (Table 10). The AC/NC-dominant profile was associated with the lowest levels of idiocentrism; however, deltas were fairly weak, ranging from 0.01 to 0.36. Likewise, nearly all comparisons had confidence intervals overlap with zero, questioning the utility of this predictor of commitment.

Meyer et al.'s (2012b) meta-analytic results revealed Rho effect sizes ranging from -0.07 to -0.23 on individualism. Converted to deltas, these effects range from -0.14 to -0.47. Effects for the person-focused meta-analytic results found here were slightly smaller, ranging from 0.01 to 0.37, though all confidence intervals overlapped with zero in the person-focused analyses. Confidence intervals were not provided by Meyer et al.

(2012b). Thus, profile-centered results were similar to the variable-centered approach results.

3.4.4 Psychological Contracts

The final base of commitment was psychological contracts. In Hypothesis 4b, I predicted that value-based profiles would be associated with higher levels of psychological contract fulfillment, in comparison to the weak-commitment profiles. In support of Hypothesis 4b, the value-based profiles demonstrated significantly higher levels of psychological contract fulfillment in comparison to the weak-commitment profiles (Table 11). The largest effects were found for the low commitment and high commitment profile comparison, which revealed a delta of 2.74. Additionally, all but one confidence interval did not overlap with zero, suggesting that all commitment profile comparisons (aside from the AC/NC-dominant and high commitment comparison) were significantly different from one another. Likewise, cluster placement explained all of the variance in psychological contract variability for a number of comparisons. However, these results should be viewed cautiously, as only three studies were provided and a number of comparisons had very small N's. The rank ordering of commitment profiles revealed that the low commitment profile demonstrated the lowest levels of psychological contract fulfillment, followed by the moderate commitment profile. Of the value-based profiles, the AC-dominant profile demonstrated the lowest levels of psychological contract fulfillment, while the high and AC/NC-dominant profiles demonstrated the greatest psychological contract fulfillment (though the confidence interval of this comparison overlapped with zero).

No commitment meta-analysis has examined psychological contract fulfillment as a predictor of commitment; therefore these person-focused effects cannot be compared to any variable-focused meta-analyses previously conducted. That said, the effects for this meta-analysis were quite large, with deltas ranging from 0.30 to 2.74, and 63% of comparisons resulted in deltas greater than 1.

3.5 Meta-Analysis Results: Antecedents of Profiles

3.5.1 Age

Value-based profiles were predicted to have older participants than weak commitment profiles (Hypothesis 5a). Results revealed that the value-based profiles were associated with older participants, and the AC/NC-dominant profile was associated with the oldest participants (Table 12). The weak commitment profiles were associated with the youngest participants, with no substantial difference between the low commitment or moderate commitment profiles. All confidence intervals comparing the weak commitment profiles and the value-based profiles excluded zero, indicating the significance difference between these two profile categories. However, the within-category comparisons were substantially smaller with many within-category confidence interval comparisons overlapping with zero. That said, the AC/NC-dominant profile was composed of older participants than both the high and AC-dominant profiles.

Meyer et al.'s (2002) meta-analysis found Rho effect sizes ranging from 0.12 to 0.15. Those values converted to delta's range from 0.24 to 0.30. Results from the person-focused analyses found here observed delta values ranging from 0.00 to 0.40, with some comparisons greater than .30. Therefore, the person-focused analyses revealed slightly

larger effect sizes utilizing person-focused approaches, as opposed to variable-focused approaches.

3.5.2 Sex

Hypothesis 6 predicted no sex differences among the various profiles. A large number of studies provided effect sizes to analyze for these meta-analyses (*K* = 9-29; Table 13). As expected, effect sizes were quite small, ranging from 0.01 to 0.36, with a majority of effects less than 0.10. Additionally, most confidence intervals overlapped with zero, indicating the lack of significance of this predictor. That said, a few confidence intervals did indicate significant differences. For example, both the high and AC/NC-dominant profiles were significantly different from the low commitment profile, where both value-based profiles had a larger percentage of women than did the low commitment profile. Likewise, the high commitment profile was distinct from the moderate and AC-dominant profiles as well, indicating the large proportion of women found in the high commitment profile even in comparison to other value-based profiles. Therefore, mixed results were found for Hypothesis 6, as most effect sizes were not significant; however, a few value and weak commitment profile comparisons did demonstrate a significant difference.

Meyer et al. (2002) meta-analyzed these effects as well, and found that Rho's ranged from 0.01 to -0.03. Converted to deltas, these values are 0.02 and 0.06. Parallel to this, most deltas observed in this meta-analysis were less than 0.10 as well; however, some deltas were moderately large (e.g., high-low profile comparison's delta was -0.36). Therefore, although most effect sizes were comparable to the Meyer et al. (2002)

findings, some values were moderately larger when examined in person-focused analyses.

3.5.3 Marital Status

It was predicted that value based profiles would have a larger portion of married participants than the weak commitment profiles due to the low job mobility associated with being married. Results revealed that most effects were moderately large, with a majority of effect sizes larger than 0.25 (Table 14). As expected, the high and AC/NC-dominant profiles demonstrated the highest proportion of married participants, and the low commitment profile demonstrated the lowest proportion of married participants. Likewise, the AC-dominant profile demonstrated significantly more married participants than either the low or moderate commitment profiles as well, providing consistent support for Hypothesis 7a.

In comparison to Meyer et al. (2002), effect sizes ranged from 0.00 to 0.09. Converted to deltas, these effects are expected to range from 0.00 to 0.18. As observed in these profile meta-analyses, a majority of effect sizes were above 0.25, with a number of effect sizes double those found by Meyer et al. (2002). Therefore, the effect sizes for profile analyses were larger than the variable-focused analyses conducted by Meyer et al. (2002).

3.5.4 Parental Status

Like prediction 7a, Hypothesis 8a predicted that value-based profiles would have significantly more parents than the weak commitment profiles on account of the job mobility principle. Meta-analytic results revealed that the high and AC/NC-dominant

profiles were significantly different from both the low and moderate commitment profiles, whereby the former two demonstrated a larger proportion of parents (Table 15).[7] However, the AC-dominant profile was distinct from the low commitment profile, but the confidence interval comparing the AC-Dominant and moderate profiles overlapped with zero. The high commitment profile had a larger portion of parents than the AC-dominant profile as well. In sum, results largely supported Hypothesis 8a, giving credence to the job mobility principle.

Meyer et al. (2002) did not assess parental status in their variable-focused analyses. However, like results for marital status, effect sizes were moderately large with most above 0.25 and some larger than 0.60. Additionally, profile placement explained a large portion in the variance in parental status as well, demonstrating the efficacy of the job mobility principle as an explanatory mechanism of commitment.

3.5.5 Education

It was unclear whether value or weak commitment profiles would be associated with higher or lower levels of education, as neither bond reflects a commitment based in needs (unlike the transactional, exchange-based profiles). Therefore, this was left as a research question. Results revealed relatively small effect sizes (Table 16). Both the low and moderate commitment profiles demonstrated higher levels of education in comparison to the AC/NC-dominant and AC-dominant profiles, though the High commitment profile could not be distinguished from either weak commitment profiles.

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[7] Some data sets provided the number of children an employee had. This information was dichotomized to equate all data sets – either with or without children.

Therefore, it appears that the weak commitment profiles demonstrated greater levels of education in comparison to many, but not all, value-based profiles.

Effects for the person-focused meta-analyses ranged from 0.00 to 0.37, with half of the effect sizes less than 0.15. Meyer et al.'s (2002) variable focused meta-analyses Rho effect sizes ranged from 0.01 to -0.11. Converted to deltas, these values range from 0.02 to 0.22, which is consistent with effects found for the person-focused analyses. The one exception is the AC-dominant and low commitment profile comparison (δ = -0.37), though most effect sizes ranged from 0.10 to 0.25.

3.5.6 Positive and Negative Affect

Hypothesis 10a predicted that value-based profiles would have higher levels of PA than weak commitment profiles, whereas Hypothesis 11a predicted that weak commitment profiles would have higher levels of NA than value-based profiles. Four samples were provided for both sets of analyses, and results largely supported Hypotheses 10a but not as clearly for Hypothesis 11a (Tables 17 and 18). That is, all confidence intervals comparing value-based and weak commitment profiles on PA did not overlap with zero, demonstrating that value-based profiles had higher levels of PA than did the weak-commitment profiles. Specifically, delta values approached 2 when comparing the High and AC/NC-dominant profiles to the low commitment profile on PA. Likewise, effects were still strong when comparing the High and AC/NC-dominant profiles to the moderate commitment profile as well. The AC-dominant profile followed the same trend as the other value-based profiles on PA, but effects were somewhat weaker. Results for NA did not follow the same coherent pattern. The low and moderate

profiles demonstrated significantly higher levels of NA only compared to the High commitment profile; however, all other weak-value based comparisons resulted in confidence intervals which overlapped with zero. Thus, regarding NA, the low, moderate, AC-dominant, and AC/NC-dominant profiles could not be distinguished from one another. Therefore, there was strong support for Hypothesis 10a, but weak support for Hypothesis 11a.

Meyer et al. (2002) did not investigate the relationship between PA/NA and commitment mindsets; the construct comparison appears as a new fruitful avenue for commitment research (Bergman et al., 2009). PA results for person-focused analyses revealed moderate to large effect sizes, revealing that value-based profiles demonstrated the highest levels of PA. Surprisingly however, the NA effect sizes were fairly small, and the only large effect sizes were found for the comparison between the High and weak-commitment profiles. All other comparison confidence intervals overlapped with zero.

3.5.7 Job Security

Hypothesis 12b predicted higher levels of job security for value-based commitment profiles as opposed to weak commitment profiles due to the norm of reciprocity (Goulder, 1960). Results revealed weak support for Hypothesis 12b (Table 19). Specifically, the comparison between the AC/NC-dominant profile and the moderate commitment profile resulted in a confidence interval that did not overlap with zero, whereby the AC/NC-dominant profile demonstrated higher levels of job security. Likewise, all other confidence intervals for the AC/NC-dominant profile comparisons

did not overlap with zero, except for the low commitment profile comparison. Additionally, neither the High nor the AC-dominant profiles were distinct from either weak-commitment profiles. Therefore, the only support for Hypothesis 12b was from the comparison between the AC/NC-dominant and moderate profiles.

Meyer et al. (2002) did not meta-analyze the relationship between organizational commitment and job security. Delta values in this analysis were relatively weak, with half of the values above 0.20. Surprisingly, the largest delta value was observed for the High commitment AC/NC-dominant profiles comparison, whereby the AC/NC-dominant profile was found to have higher levels of job security. That said, this analysis had very few participants.

3.5.8 Pay Satisfaction

Like job security, I predicted that value-based profiles would demonstrate higher levels of pay satisfaction than the weak commitment profiles because of the norm of reciprocity (Goulder, 1960). Consistent with the other meta-analyses, the largest effect sizes were found for between category comparisons (e.g., value based profiles and weak commitment profiles), as opposed to within category comparisons (e.g., AC-dominant profile and AC/NC-dominant profile; Table 20). Consistent with my prediction, all confidence intervals comparing value-based and weak commitment profiles did not overlap with zero. Specifically, both the AC-dominant and AC/NC-dominant profiles demonstrated higher levels of pay satisfaction than did either the weak or moderate commitment profiles.

Meyer et al. (2002) investigated this same relationship and found Rho's ranging from 0.02 to 0.35. Converted to deltas, these effects range from 0.04 to 0.75, largely parallel the effects found in this meta-analysis. That is, the comparisons between the AC/NC-dominant profile and both weak-commitment profiles were above 0.60. Similarly, commitment profile placement explained a large portion of the variance in pay satisfaction variance, demonstrating the strong relationship existing between these two variables.

3.5.9 Coworker/Leader Satisfaction

I argued that the innate drive to belong and socialize with others is a critical component of the development of commitment. Specifically, individuals with high levels of coworker and leader satisfaction would be more likely to have value-based, as opposed to weak commitment profiles. Across all meta-analyses, results supported my assertions (Tables 21 and 22). Specifically, all confidence intervals for all value-based/weak commitment profile comparisons did not overlap with zero for both coworker and leadership satisfaction. That is, all weak commitment profiles demonstrated lower coworker and leader satisfaction than all value-based profiles. The largest effect sizes were found between the low commitment profile and the high commitment profile. Even within category differences emerged. For example, the moderate commitment profile demonstrated significantly higher levels of coworker and leadership satisfaction. Likewise, the high and AC/NC-dominant profiles associated with higher levels of both coworker and leadership satisfaction than the AC-dominant profile, though the former two could not be distinguished.

The variable-focused results in Meyer et al. (2002) found Rho effects ranging from -0.11 to 0.45 for coworker satisfaction and -0.04 to 0.42 (CC and AC, respectively) for leadership satisfaction. Converted to deltas, the coworker satisfaction deltas ranged from 0.22 to 1.01, and the leadership satisfaction deltas ranged from 0.08 to 0.93. Person-focused results largely paralleled the variable-focused results, where effects ranged from -0.20 to -0.98 for coworker satisfaction and -0.17 to -0.97 for leadership satisfaction. Thus, person-focused analyses were consistent with previous meta-analytic effect sizes.

3.5.10 Overall Job Satisfaction

Similar to the other satisfaction hypotheses, value-based profiles were expected to be associated with the highest levels of overall job satisfaction while the weak commitment profiles were expected to be associated with the lowest levels of overall job satisfaction. All six available comparisons found confidence intervals that did not overlap with zero (Table 23). Overall, the value-based profiles demonstrated higher levels of job satisfaction than did either weak commitment profile. Further, the moderate commitment profile was found to have greater job satisfaction than the low commitment profile and the AC/NC-dominant profile was associated with greater job satisfaction than the AC-dominant profile.

Effects for the person-focused analyses revealed relatively large deltas ranging from -0.70 to -1.66 with most effects greater than 1.00. Meyer et al.'s (2002) variable-focused findings found Rhos ranging from -0.07 to 0.65 (CC and AC, respectively).

Converted to deltas, these effects range from 0.14 to 1.70. Thus, the effects were fairly consistent in magnitude between the two analyses.

3.5.11 Organizational Size

I proposed competing hypotheses regarding organizational size. On the one hand, organizational size could be interpreted positively in organizations that provided added resources on account of their larger size. On the other hand larger organizations could be viewed negatively in cases where employees feel like a small cog in the organization. Results were mixed (Table 24). Individuals in the moderate and low commitment profiles were associated with larger organizations than the AC/NC-dominant profile, though the high profile was only found to be associated with smaller organizations when compared to the low commitment profile, but not to the moderate commitment profile. Further, the low commitment profile was associated with the largest organizations, larger than even the moderate commitment profile. Thus, only the low commitment profile could be demonstrated to be associated with the largest organizations and the AC/NC-dominant profile was associated with smallest organizations; all other profiles could not be distinguished from one another. Therefore, results suggest that membership in larger organizations is interpreted negatively, supporting Hypothesis 18.1

Effects for these person-focused analyses were moderately large, ranging from 0.02 to 0.86, with some deltas being larger than 0.50. Meyer et al. (2002) did not meta-analyze organizational size as a predictor, so results are not comparable. Surprisingly, organizational commitment explained 100% of the variance in organizational size for

many of the profile comparisons. Thus, organizational size is likely to have a large impact on determining commitment cluster membership.

4. DISCUSSION

4.1 Summary of Findings

4.1.1 LPA Results

A five-cluster structure provided the best fit to the multilevel data. Posterior probabilities revealed moderately strong fit with the five-cluster structure as well, with all posterior probabilities above 0.81. The five clusters were interpreted as (1) moderate, (2) AC-dominant, (3) low, (4) AC/NC-dominant, and (5) High commitment profiles. Thus, there were no exchange-based profiles in these data. As a result, comparisons could only be made between the weak commitment profiles and the value-based profiles.

4.1.2 Meta-Analytic Findings: Bases of Commitment

Eighteen total predictors were available to be meta-analyzed from the provided archival data sets. Results largely paralleled predictions. Across nearly all bases of commitment (except idiocentrism), higher levels of a given base were associated with more positive organizational attachments (e.g., value-based bonds). Specifically, value-based profiles were associated with higher organizational support, identification, and psychological contract fulfillment. The largest effects were found with organizational identification, with all deltas above 1.00, and some above 2.00. Results for organizational support and psychological contract fulfillment were also large (Cohen, 1992). In contrast, idiocentrism as a base of commitment did not result in many significant effects across profiles. The only significant differences were observed between the moderate/low and AC-dominant/low comparisons, whereby the low commitment profile demonstrated the highest levels of idiocentrism. This provided only

moderate support for the hypotheses, in that weak commitment profiles were proposed to have higher levels of idiocentrism while value-based profiles were expected to have lower levels of idiocentrism (higher allocentrism). Thus, bases of commitment have been demonstrated to strongly support the development of value-based bonds.

4.1.3 Meta-Analytic Findings: Antecedents of Commitment

In accordance with my predictions, antecedents largely demonstrated weaker effects than the bases of commitment, with most deltas smaller than 1.00. Regarding individual characteristics as antecedents, value-based profiles were associated with older, married, and less educated participants compared to the weak commitment profiles. Value-based profiles also had greater trait positive affect in comparison to the weak commitment profiles. Additionally, value-based profiles were composed of more female participants and participants with children than the weak commitment profiles. Regarding organizationally focused antecedents, the value-based profiles tended to be associated with higher pay, customer, coworker, leadership, and overall job satisfaction than the weak commitment profiles. The results for job security and organizational size were mixed, whereby only the AC/NC-dominant profile could be distinguished from all weak commitment profiles for both predictors. Likewise, the low commitment profile consistently demonstrated the lowest job security and was associated with the largest organizations, consistent with predictions. Thus, positive organizational experiences were strongly associated with value-based attachments, though those relationships were weaker than those found for bases of commitment.

4.2 Profiles and Why They Emerge

Profiles reflect a combined mindset of the three dimensions in the commitment literature (affective, continuance, and normative). The LPA conducted on 40 samples resulted in a wide variety of cluster solutions across samples (Table 2; Figure 3), indicating that there are differences across samples in which profiles emerge. However, moderator analyses demonstrated that profiles did not vary as a function of any of these proposed moderating variables that reflect study characteristics (e.g., sample size, measure of commitment, national location of the sample). It is therefore likely that the samples and their emergent profiles varied on substantive predictor variables not included in the moderator analyses but included in the meta-analyses. (It is also possible that there are other variables, not in the moderator analyses or the substantive analyses that contribute to differences across samples.)

That is, I argue that the participants in the samples vary on substantive predictor variables and these predictor variables—and not study characteristics—cause the differences in profiles across studies. It could be that certain combinations of predictor variables influence the type of commitments observed in a sample. For example, a workplace that employs individuals with high organizational support and identification (supporting the mindsets of AC and NC), focusing on positions with high education (influencing low levels of CC) could support the development of the AC/NC-dominant profile, which was not found among all samples. In contrast, a workplace with high POS and identification (high AC and NC), but assessed within a job type that has low levels of education (high CC) could support the development of a high commitment profile.

For example, a sample of sanitation plant workers (see Ashforth, Kreiner, Clark, & Fugate, 2007) could have a high commitment profile emerge if there is high POS and identification, as the educational requirements are minimalized. In contrast, a sample of university professors with similar POS and identification might have the AC/NC-dominant profile emerge but not a high commitment profile because of the high education level of the sample.

Consequently, it seems unlikely that any organizationally-based sample, no matter how large it may be, would be able to accurately determine the final profile solutions across all populations because each sample has a unique set of characteristics which define its profile structure. The potential for given clusters is limited based on the type of work and the various predictor variables that result in specific profiles. Thus, workplaces that provide for both affectively and obligatory-based bonds but not compulsory attachments (e.g., professor) will not be likely to have a high commitment profile. That does not imply that the high commitment profile does not exist within the general population. It merely means that the circumstances within a given sample preclude (or include) it from having specific profiles. Thus, the idiosyncrasies within a given sample are important to investigate and address, even though not all other samples have that same profile makeup. Even among this multilevel LPA, not every sample had an AC/NC-Dominant profile, High commitment profile, or a moderate profile.

4.2.1 Exchange-based profiles

It seems highly probable that an exchange-based profile does phenomonologically exist, despite the failure to find one in the multi-level analysis,

because a CC-dominant profile was found in over half of the samples in the individual analyses (Table 2 and Figure 3).[8] Thus, this exchange-based profile emerged a number of times in the individual LPAs, more so than any of the other profiles which did not emerge in the multilevel LPA findings, but had a sample size only slightly smaller than the other emerged profiles (7% of sample; Table 25). Additionally, the moderate commitment profile emerged in the individual LPAs the same number of times as did any of the other profiles which emerged in the multilevel LPA. Among the published studies, the moderate profile also contained a comparable number of individuals as the other profiles (28% of sample; Table 25). However, within the comprehensive multilevel LPA, nearly half of all participants were categorized within the moderate commitment profile. Therefore, it seems possible that based on sample size and number of samples, the CC-dominant profile (clearly emergent in the individual analysis) was partially couched within the moderate commitment profile. This also seems likely as both profiles would reflect marginal commitments lacking both a strong desire and/or obligatory components (Meyer & Parfyonova, 2010). Thus, this clustering issue may be a nomenclature problem, as CC-dominant profiles usually do not have extreme high levels of CC, they merely have higher CC (e.g., 3.5) than either AC or NC (e.g., 2.5). However, as clearly evident by the individual analyses, the CC-dominant profile was consistently found.

This peculiar finding could be an example of a Simpson's Paradox, whereby the compilation of various variables results in a counterintuitive finding (Simpson, 1951).

[8] Below, I address why the CC-Dominant profile was not found in the multilevel analysis.

That is, at the individual study-level, the CC-dominant profile emerges in many profiles; however, after averaging across all data sets, the profile disappears. Additionally, this finding may be due to the observed overlap between the two profiles. For example, Meyer et al. (2012) found only moderate cluster classification utility for the moderate commitment profile in his study; posterior probabilities for the CC-dominant and moderate profiles demonstrated that individuals within the moderate profile could most easily be re-classified in the CC-dominant profile and vice versa, though the current classification was ideal. Posterior probabilities indicate the accuracy for each profile's categorization. Posterior probabilities also demonstrate the likelihood that a given profile would be re-categorized into any other profile. Therefore, higher posterior probabilities for the CC-Dominant and Moderate profiles in Meyer et al.'s (2012) study demonstrate some degree of overlap between the two profiles. . Thus, the CC-Dominant profile may have been averaged out among the Moderate Commitment Profile, despite its existence at the individual level.

Likewise, based on my arguments above, it seems probable that a CC-Dominant profile could emerge in samples that have minimal educational requirements (or any other aspects which support the development of the CC-Dominant mindset), coupled with non-identifiable work which tends to have minimal importance and/or value in society. For example, janitorial positions are likely to have some individuals who are classified as CC-Dominant; whereby the only attachment some individuals feel towards their organization is their need for an income. At minimum then, the CC-dominant profile cannot be discarded in future research.

4.2.2 Final Five Profiles

Subsequently, the five profiles that emerged from these analyses are not intended to be viewed as the only five commitment profiles that should be considered or that any result that deviates from these five profiles is suspicious. It is likely that profile interpretations are dependent upon the work, organizational, and contextual situations in which the sample was investigated in (e.g., professors vs. sanitation employees). Therefore, the five profiles that emerged in this sample are not meant to be interpreted as the final five profiles of commitment; rather, they are the best fitting set of profiles based on the sample gathered. Other samples with different workplace characteristics and predictors may obtain distinct results.

Although this study did utilize meta-analytic techniques which tend to provide results that generalize across all samples, the multilevel LPA portion of this paper was not intended to provide such broad-sweeping conclusions. Meta-analysis was used to provide implications for the relationship between profiles and predictors, which are generalizable. The LPA however, was not able to describe the final profile interpretations across all samples. Additionally, the multilevel LPA attempted to account for this variability among the various studies by categorizing individuals based on both the within and between-study variability; the posterior probabilities for this cluster solution were moderately strong, with all values above 0.80, though the classification utility could still be higher. As a result, it seems possible that other samples may find different classifications as well.

4.3 Role of NC and CC in Profile Research

Based on the results of this analysis, researchers might begin to question the utility of retaining both NC and CC for future organizational commitment research, which some researchers have already done (e.g., POS research; Rhoades, Eisenberger, & Armeli, 2001). Despite these results, abandoning the NC and CC mindsets is not recommended. First, as discussed above, it seems highly probable that an exchange-based profile does exist, which would be characterized by high levels of CC and, possibly, high levels of NC.

Additionally, the three mindsets of commitment appear to be arranged hierarchically. That is, a commitment profile first appears to be defined by the presence (or absence) of AC. This determines whether the profile will be categorized as a value-based profile or not. Among the three mindsets, AC has been found to correlate with most focal and discretionary behaviors as well as provide the strongest estimates for those relationships (Meyer & Hescovitch, 2001). Thus, AC has been demonstrated to be the most critical mindset regarding behavioral outcomes. Additionally, AC elicits the perception that the greatest amount of requirements and tasks are circumscribed by the job, unlike NC or CC (Meyer & Herscovitch, 2001). As a result, AC determines the overall category of the bond: either a value-based profile or not. When employees have high levels of AC, perforce, they will have a value-based commitment. If not, employees will either be categorized as having exchange-based or weak commitment profiles. Consequently, AC appears to be the leading factor in the commitment hierarchy. However, once the profile category has been determined by levels of AC, NC and CC

provide information on how AC is (or is not) experienced by the individual. That is, they provide the within-category information which distinguishes the various profiles from each other. NC speaks to the obligatory feelings which interact with AC (or its absence), which are directly connected with the work/organization itself. That is, individuals feel an obligation to meet requirements directly tied to some aspect of their work or organization. This is one reason why obligatory-based regulations are viewed as more self-determined than merely having feelings of need alone (Gagne & Deci, 2005). Thus, AC/NC-Dominant individuals are first categorized based on their strong desire based feelings towards their organization, but the addition of high levels of NC provides supporting information on how AC is experienced. CC, on the other hand, speaks to the need-based feelings which are more distant from the work itself. The CC-mindset addresses contextual/situational issues not directly tied to the work. That is, an employee's education, marital status, parental status, etc. are all determinants of CC, but none of these aspects are specified to the work or organization. Therefore, CC is a final facet in the hierarchical steps of determining the commitment profile makeup.

NC and CC can then be viewed as qualifying mindsets, whereby they provide contextual information regarding the presence or absence of AC. In other words, dominant AC mindset anchors the bond to the focus of commitment while the other mindsets determine the "flavor" of the bond. These qualifying mindsets are important because results demonstrated that profiles within each category (e.g., value) were distinguished by NC (i.e., AC/NC dominant) and by CC (i.e., high commitment profile) and that these differences were meaningful for a number of predictor variables in the

meta-analyses presented here. This is relevant because individuals with high levels of AC towards their organization will not experience high levels of desire for all aspects of their organization or their work. It is likely that some aspects of their work will require feelings of obligation or need. As a result, the accompaniment of these qualifying mindsets instigates action in situations where individuals do not feel these strong desire-based feelings towards their work/organization. Thus, discarding NC and/or CC would minimize the variance explained among a number of different predictors (and presumably outcomes as well; see Meyer et al., 2012). Likewise, disregarding these qualifying mindsets will provide only a partial understanding of the phenomenological experience of commitment when strictly examining AC. Therefore, it is important to retain both NC and CC as they help provide greater contextual understanding of the phenomenological experience of commitment. However, it could be that people differ in the hierarchical arrangement of their commitment mindsets. I argued above that AC, followed by NC and CC, is the hierarchical arrangement. This is supported by the results of this study as well as the overarching commitment literature. However, this is a generalization and individual experiences could differ from this generalization. Therefore, to more fully understand the phenomenological experience of commitment, researchers should not only investigate levels of the three commitment mindsets (whether person-oriented or variable-oriented) but also the saliency of the three mindsets.. Specifically, researchers could gather two different pieces of information on each commitment mindset (i.e., two responses for each commitment item in a survey): (1) the traditional measure of the extent to which an individual agrees or disagrees with

the statement (i.e., level of commitment mindset); and (2) the extent to which the statement is important to determining their commitment (i.e., saliency of the mindset). The levels describe how strongly committed individuals are to their organizations while the saliency responses will be informative to understanding the experience of commitment. This should allow for more fine-grained understanding of commitment and commitment profiles in particular, as it will not rely on the levels to tell importance, but directly ask people to reflect on their own commitment processes and how they weight their experiences in forming (or not) their bond with the organization.

4.4 Meta-Analytic Comparison to Meyer et al 2002

A subset of the predictors investigated in this study were also studied by Meyer et al. (2002): POS, age, sex, education, and satisfaction. All of the effect sizes found in this study were either equivalent or greater than those found by Meyer et al. (2002). For example, POS was found to have effects twice as large when examined using person-centered analyses as opposed to variable-centered analyses. Interestingly, Meyer et al. (2002) found relatively weak effects of sex and age on commitment mindsets, though this study demonstrated a few moderate effect sizes for those comparisons. That is, the high commitment profile was composed of more women than any other commitment profile and all three value-based profiles were composed of older participants than the weak-commitment profiles, with the AC/NC-dominant profile composed of the oldest participants. The former finding is pertinent because there is a misconception that women demonstrate lower organizational commitment due to their external obligations, and many explain the pay-gap between men and women due to this incorrect belief (Lips

& Lawson, 2009). Results here reveal the opposite: most comparisons revealed no sex difference, and the one sex difference observed revealed that women have greater value-based organizational commitments than men. Thus, these person-centered analyses revealed both stronger effects than variable-centered analyses, as well as demonstrating significant effects where no relationship was previously believed to exist.

While the profiles investigated in this study are different from the individual mindsets addressed in Meyer et al. (2002), the larger effect sizes still highlight an important issue empirically unaddressed heretofore. That is, traditional commitment studies observed weak to moderate effect sizes when strictly investigating a single mindset, but, as demonstrated in this study, that only provides a lower bound estimate. Thus, previous analyses have been limited in their predictability of commitment mindsets, as only one mindset was investigated at a time. Additionally, the LPA was able to distinguish among profiles with only moderate levels of the three mindsets, which would be undistinguished in a variable-focused analysis. As a result, more variance may be explained in LPA models.

These findings also give credence to Meyer and Herscovitch's (2001) assertions that effects for commitment profiles would be greater than those for mindsets. Variable-focused approaches merely look at the relationship between a single variable and a predictor or outcome; however, that relationship fails to grasp the full phenomenological experience of the constructs at hand. By examining the interaction of all three mindsets intra-individually, researchers can begin to understand how commitment is perceived as well as how to predict it. As Meyer and Herscovitch (2001) note, because of the

variable-focused approach's inability to fully describe the phenomenological commitment experience, the typical commitment study that uses variables might provide lower bound relationships between predictors and commitment, or even commitment-outcome relationships. That is, deficiencies in assessing the variable of interest (i.e., commitment), perforce, minimizes its predictability (Cascio & Aguinis, 2011).

Likewise, the nuanced differences between the various profiles are all washed out when comparing one mindset against another. By taking a more wide-sweeping, conjoint understanding of commitment, greater effect sizes are observed. As a result, the only true comparison between this meta-analysis and Meyer et al. (2002) would be contrasting pure profiles (e.g., AC, NC, or CC-Dominant profiles) where one dominant profile is present at a time. This would parallel the variable-focused meta-analysis of Meyer et al. (2002) where only one mindset was examined for each relationship. However, only one pure profile emerged, making comparisons impossible. Additionally, one of the pretenses for conducting this meta-analysis was to demonstrate the increased efficacy in taking this more nuanced approach, where distinctions between individuals, as opposed to variables, could be investigated. Thus, the larger effect sizes found here are most likely attributed to this multiplicative approach.

4.5 Theoretical Implications

4.5.1 Criticality of Organizational Identification

Organizational identification was found to have the strongest influence on profile membership. The value-based profiles had the highest levels of organizational identification, with the AC/NC-dominant profile being associated with the highest levels

of identification. Interestingly, all of the satisfaction and affective predictors of commitment had far smaller effect sizes than did identification. However, some couch organizational commitment in largely affective terms (e.g., Herrbach, 2006), whereby organizational commitment merely reflects an overall positive evaluation of one's work. While this may be true in part, as evinced by the positive predictability of positive affect and satisfaction components on commitment, it appears that organizational identification functions in a more integral role. That is, while a positive evaluation of one's work will help increase positive organizational bonds, organizational identification shapes the bond in a more fundamental way, as others have asserted (Meyer et al., 2006).

Unfortunately, many of Meyer et al.'s (2006) hypotheses about identification could not be tested in this study. First, a NC/CC-dominant profile did not emerge in the LPA, making the moral imperative versus indebted obligation profile distinction untestable. Similarly, no other exchange-based profiles emerged, minimizing the testable propositions further. Second, the available samples only had a general measure of organizational identification and did not distinguish between deep and situated identities, as Meyer et al. (2006) did. A key distinction between the moral imperative and indebted obligation profiles depends on an analysis of both types of identification. That is, the value-based profiles are expected to relate positively to deep identification while exchange-based profiles are expected to relate positively to situated identification. Because this study was only able to assess an overall measure of identification, it is difficult to provide any implications regarding these propositions. That said, many of the items for the omnibus measure of identification related more closely to deep

identification than situated identification. For example, an item read "The relationship I have with my organization is an important part of my self-concept." This item clearly reflects the integral, context-independent role the organization fills for a person. Thus, these results for the general measure of organizational identification might be best interpreted as a form of deep identification. If that is true, these results appear consistent with Meyer's propositions, in that all value-based profiles demonstrated the strongest organizational identification, with the moral imperative profile (i.e., AC/NC-dominant) being associated with the highest levels of identification. Thus, these results provide tentative support for Meyer et al.'s (2006) suppositions regarding the relationship between the moral imperative profile and deep identification, though the comparison to the indebted obligation profile was untested. Future research should distinguish between the two types of identification, with the hopes of finding both a moral imperative and an indebted obligation profile to further clarify this relationship.

4.5.2 Norm of Reciprocity

The norm of reciprocity suggests that positive interactions are positively repaid (Gouldner, 1960); this reciprocation can take the form of either AC or NC (Rhoades & Eisenberger, 2002). Over a number of predictors in this study, positive workplace experiences led to more positive attachments: high POS, identification, psychological contract fulfillment, job security, and satisfaction resulted in a greater value-based profile classification than weak commitment profiles.

However, theory has yet to delineate how the various profiles within category will differentiate in their reciprocation. Specifically, the norm of reciprocity suggests

that positive workplace interactions will lead to value-based profiles, but what distinguishes a positive experience from being repaid with a high commitment profile versus an AC-dominant profile? Perhaps a constellation of predictors--that is, a profiles of predictors--are associated with profiles of commitment. Like commitment, the full phenomenological experience of these predictors might be untapped by taking a variable-focused approach. As discussed above, I propose that profiles of commitment can only emerge in samples where relevant job-specific and individual-specific conditions are present. For example, a high commitment profile is unlikely to be found among a sample of college professors, as their high level of education could preclude them from having high levels of CC. Likewise, jobs in which obligation is not salient are unlikely to produce a NC/CC-dominant profile. This same principle could be true regarding predictors as well. That is, a combination of certain predictors may engender certain profiles. For example, POS is a positively perceived resource for employees, which could lead to a perceived obligation to return the favor and obligatorily remain at an organization. Identification, on the other hand, represents a more integral workplace facet, whereby value congruency is shaping the relationship as opposed to a positive exchange of resources. Perhaps high levels of organizational support and identification interact to result in an AC/NC-dominant profile, whereas little organizational support and high identification could result in an AC-dominant profile. Regardless, the general point is that merely looking at identification or POS alone will likely provide an incomplete understanding as to what causes commitment. .

That being said, a desire to reciprocate might only occur when positive conditions are salient to people (Bergman et al., 2013). That is, the positive experiences that the organization is providing must be perceived as a positive input for the employees, or else it will not have a beneficial effect. For example, an employee who works for an organization that provides significant support for environmentally-friendly causes will interpret this experience as positively only if environmental causes are a salient and valued component of this employee's life. If, however, employees do not view environmental causes as a pertinent part of their lives (or even worse, they oppose environmental causes), then this proposed resource will at best be ignored and at worst cause anger. With this in mind, organizational initiatives and resources must be chosen based on the people employed in the organization, and not all organizationally provided resources will result in a desire to reciprocate (Schneider, 1988).

As a result, it seems that the simple explanation used by the norm of reciprocity is more difficult in application when trying to pinpoint the mechanics of its effects. Specifically, certain levels of predictors could intra-individually interact to catalyze a specific reciprocated response, and only those predictors which are salient to the focal individual will elicit said responses. Thus, providing salient, positive organizational interactions for employees is a necessary, but not sufficient case for reciprocation. Rather, inputs from the organization must be interpreted positively for the particular person to activate the norm of reciprocity, and different sets of positive experiences could engender different profiles, but we do not yet know what sets are associated with what profiles. Future research needs to delineate what those interactions are.

4.5.3 Job Mobility Principle

Across a number of antecedents, individuals who had less job mobility tended to have more positive organizational bonds. Specifically, value-based profiles were associated with individuals who were married, had children, and had less educational training. Marriage and children represent contextual constraints which inhibit a person's mobility (Becker, 1960). Likewise, education reflects a skill which could make an employee more marketable across various organizations; therefore, individuals who possess greater education were found to be less bound to their organization as there was greater opportunity for these employees in other organizations.

Unfortunately, comparisons could not be made between the value-based and exchange-based profiles, where I predicted that the exchange-based profiles would be associated with greater percentages of married participants and participants with children, as the basis of their bond likely stems from a need or obligation to remain, rather than a desire to remain. However, this remains untested.

In regards to education, it was interesting that the high commitment profile could not be distinguished from either weak commitment profile. That is, the low, moderate, and high commitment profiles demonstrated the highest levels of education, while the AC-dominant and AC/NC-dominant profiles demonstrated the lowest levels of education. The pairing of the high commitment profile with the low and moderate commitment profiles was surprising because individuals with greater education were expected to have a diminished need to remain. However, the individuals in the high commitment profile, which included a high need to remain, demonstrated high levels of

education. One possible explanation may be that their increased education was not a determining element of their need to remain. That is, it is possible that the high commitment group, albeit with greater education and proposed greater job mobility, had other situational constraints inhibiting their mobility (e.g., parental and marital status). In fact, the parental and marital status meta-analyses found that the high commitment profile was composed of primarily parents and married participants. Additionally, the high commitment profile was also composed of the oldest participants in this sample. Therefore, the advanced education of the high commitment profile may not be caused by their advanced skills and training, but rather a function of their age, because older individuals have had more opportunities over time for training and educational advances. Therefore, education may merely function as a proxy for age for the high commitment profile. However, these propositions lack empirical testing, and future work should investigate these effects and explanations.

4.5.4 Idiocentrism/Allocentrism

Surprisingly, idiocentrism failed to be the robust predictor of commitment that many had suggested (Bergman, 2006; Meyer et al., 2013; Wasti, 2003; Wasti & Oneder, 2009). It was predicted that greater idiocentrism would lead to weaker organizational attachments while greater allocentrism would help individuals develop value-based profiles. The low commitment profile was found to have the highest levels of idiocentrism, though only the low/moderate and low/AC-dominant profile comparisons were significantly different.

This lack of significance may be due to the failure to find an exchange-based profile in the LPA. Many have proposed the importance of understanding cultural syndromes when investigating obligatory and need-based attachments (Bergman, 2006; Meyer et al., 2013). However, because this study was unable to investigate relationships with exchange-based profiles, this potential significant relationship may be undetected. Future work should investigate this among cross-national samples, to investigate the efficacy of the earlier propositions with exchange-based profiles.

4.6 Practical Implications

A number of practical implications can be gleaned from this study. First, supporting the development of identification aids in shaping value-based commitment profiles as well. Any ways in which employers can help make their employees identify with the organization will help to increase positive attachments to the organization, and subsequently greater retention (Meyer et al., 2002). For example, call centers have had notoriously high turnover rates (Grant, 2013); providing telemarketing employees with examples of how their work contributes to real-life issues (enhancing employee identification) could increase value-based commitments, which should subsequently diminish turnover (Grant, 2013). The strong connection observed between identification and commitment found in this study reveals the importance of value-congruency in developing more positive organizational attachments. Augmenting these value-connections will serve the organization and the employee well.

Second, providing employees with positive workplace experiences leads to greater and more meaningful attachments. The value-based profiles were associated with

the highest levels of all forms of workplace satisfaction (e.g., job, pay, leader, etc.). Therefore, improvements in work-related satisfaction is likely to improve the quality of commitments as well. Employee assistance programs, long-term planning, and mentoring programs should help facilitate positive attachments, subsequently diminishing turnover as well. The more that the organization invests in its employees, the more the employees will seek to reciprocate those positive feelings towards the organization.

Third, the findings relevant to the job mobility principle revealed that some level of turnover is expected for individuals with greater education and fewer location-specific ties. As mentioned above, individuals with greater education, due to their superior qualifications, expressed weaker attachments to their organization. Therefore, organizations with positions requiring advanced degrees (e.g., medical doctors, college professors, lawyers, etc.) should recognize that some voluntary turnover is expected due to these weak attachments (see Lee & Mitchell, 1994). In contrast, aspects of people's lives that bind them to a specific place (e.g., spouse, children, etc.) increase positive organizational attachments. Therefore, positions filled by younger employees with weaker location-specific ties should also be expected to be associated with some level of voluntary turnover. As a result, there are a number of factors not under the organization's purview that contribute to turnover (Russell, 2013).

Next, this study found that smaller organizations were more strongly associated with value-based profiles than larger organizations. Whereas the size of an organization can be a reflection of its productivity and clout, making the organization "feel" smaller

to the people in it could prove beneficial towards improving employee attitudes. Providing interpersonal department activities that support relationship building might minimize the cog-like feel associated with being part of a large organization by focusing more attention on the more immediate and smaller department that employees are associated with. Similarly, part of Hackman and Oldham's (1976) job characteristics model includes task identity, whereby motivation is improved when individuals play an integral role in the completion of a given task. Individuals in large organizations might lose that feeling because they only take part in a small portion of the completion of a given task. Therefore, widening employee responsibility to have more of an impact on the task completion process—or, at least, clarifying how their work is essential to the total process--could minimize the negative effects associated with being part of a large organization as well.

Finally, there is a misconception among managers that women have minimal attachments towards their organization due to their commitment to their families (Lips & Lawson, 2009). Although previous research found null results, this study found that where sex differences occurred, women had stronger and more positive attachments towards their organization than did men. Intuitively, managers might assume that commitment towards various foci is cumulative and finite, whereby only so much commitment can be directed towards any single focus. However, the findings of this study suggest that these discriminating attitudes lack empirical support. Therefore, using sex as a predictor for commitment is not consistent with the findings of this study.

4.7 Limitations and Future Directions

First, a number of the meta-analyses had relatively small *K*'s and *N*'s. This is potentially problematic because it can cause second order sampling error (Hunter & Schmidt, 2004). Like traditional sampling error, second order sampling error refers to biased parameter estimates due to an insufficient sampling of the entire sampling domain. Traditional sampling error occurs when a small sample is not representative of the sampling domain which produces biased estimates; second order sampling error occurs when the sampling of the samples is biased. This tends to occur in small meta-analyses where the few samples provided are biased in a given direction, resulting in biased effect sizes. For example, the identification meta-analyses had a *K* of four and a sample size ranging from 147 to 867. The meta-analysis with only 147 participants has a high potential for second order sampling error. That said, a number of the credibility intervals were quite small, with the percentage of variance explained very high. Thus, although second order sampling error is a potential concern, the magnitude and consistency of such effects minimize those issues.

Second, identification proved to be a strong predictor of organizational commitment profiles, larger than any other predictor analyzed in this study. However, I was unable to distinguish between situated and deep identity due to limitations in the provided samples. Future work should address this empirical question as identification appears to be a critical component of the development of commitment. Subsequently, assessing this variable over time, utilizing longitudinal approaches to the study of

commitment would prove beneficial to understanding how it develops, and whether it is in concert with the fluctuations in organizational identification (both situated and deep).

Third, I suggested above that it may be fruitful for commitment researchers to begin including predictors of commitment in commitment models to help provide a greater understanding of the phenomenological experience of commitment. Specifically, an analysis where both predictors and outcomes are included in a single model is possible with recent developments in LPA statistics (Pastor et al., 2009). Such analyses could cluster individuals not only on their relative endorsement of the three mindsets of commitment (i.e., commitment profile), but also on their levels of identification, POS, education, and the like. Unfortunately, the nature of the samples and nonoverlapping sets of predictors precluded this more complex LPA from being conducted here. Thus, future research should attempt to account for the interactive variance among the predictors as well, to help explain more variance in commitment profile placement

Relatedly, all provided samples were either predictive or concurrent designs; none of the samples were longitudinal. While that is irrelevant to the meta-analysis portion of this study, it reflects a large limitation in our lack of understanding on the development of commitment in general and commitment profiles in particular. The next step to help provide greater understanding regarding the development of commitment profiles is to conduct longitudinal studies to address how commitment changes and evolves as work and individual characteristics adapt over time. Additionally, the statistical capabilities are available for this type of LPA; essentially, researchers would have to add a latent-growth aspect to the model to address the change component. This

analysis would cluster individuals based on their relative endorsement of the three mindsets of commitment and whatever predictor variables are included in the model, while accounting for the change in both commitment and the predictors over time.

5. CONCLUSION

The findings of this study shed light on the relationship between a number of predictors and various profiles of commitment across a number of different environments. This study utilized archival samples allowing for a large sample size (N = 16,052). Organizational identification was found to be the strongest predictor of organizational commitment profiles, and both the AC/NC-dominant profile and the high commitment profile were found to be associated with most positive organizational experiences. Implications for these findings were made relevant to a number of organizational theories, including the norm of reciprocity and job mobility theories.

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APPENDIX A

FIGURES

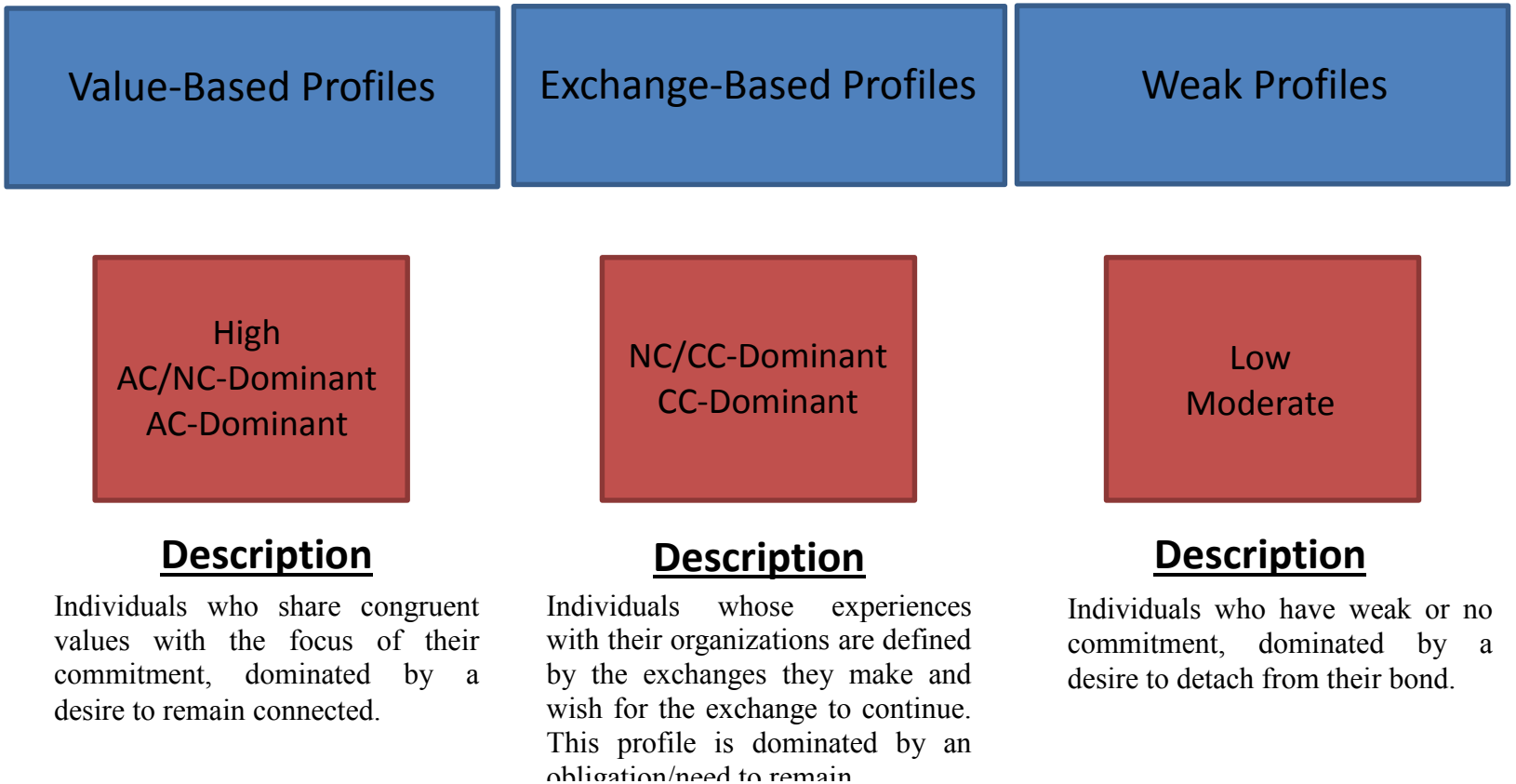

Figure 1.
Description of Profiles

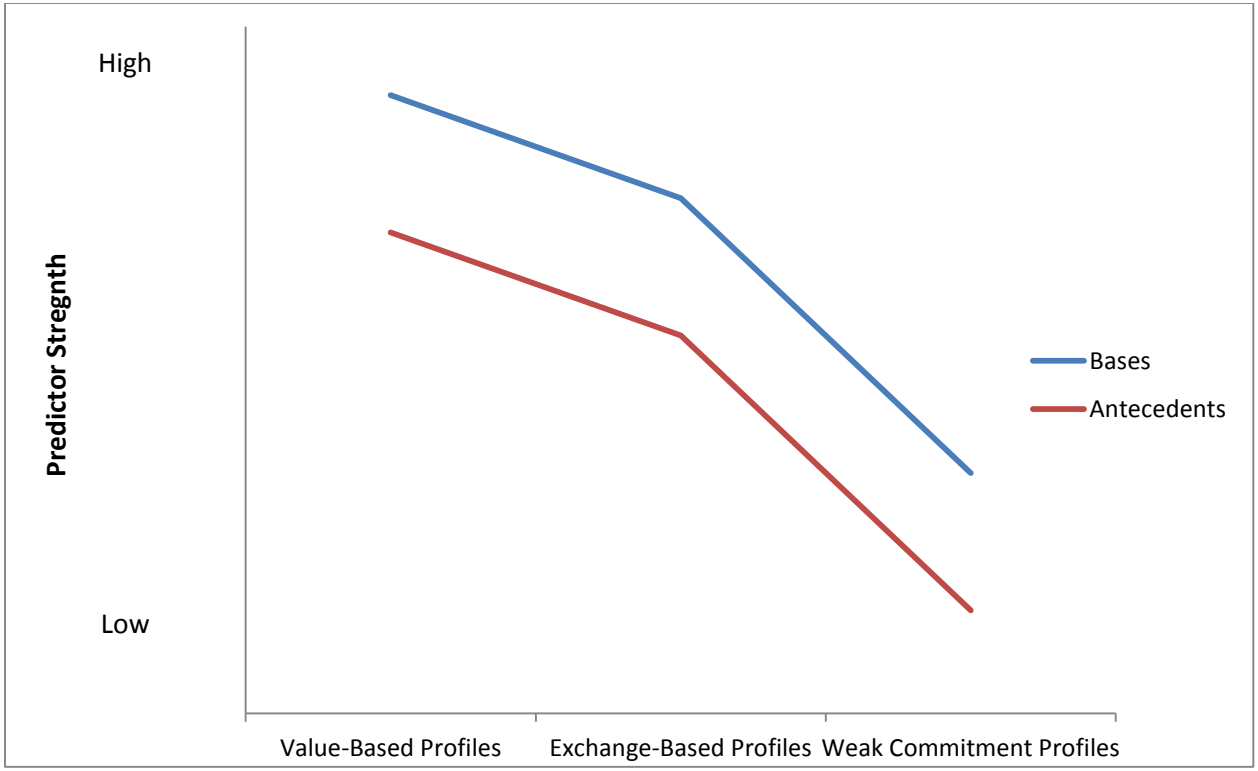

Figure 2.
Summary of Predictions

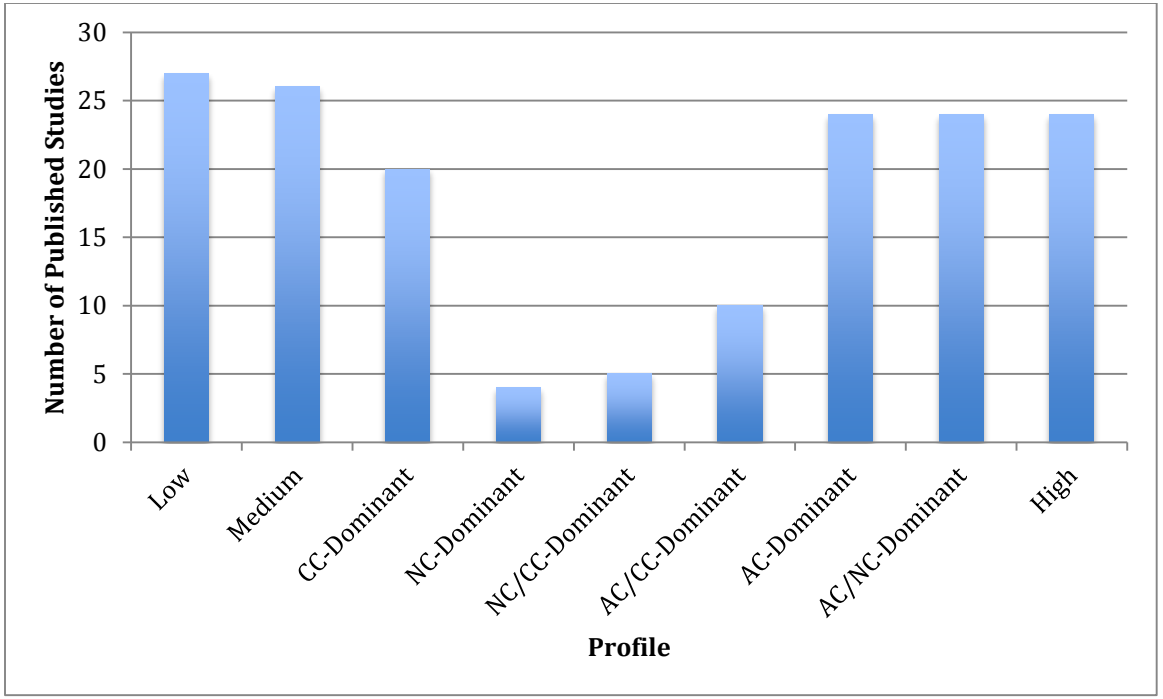

Figure 3.
Profile Cluster Placement for Published studies.

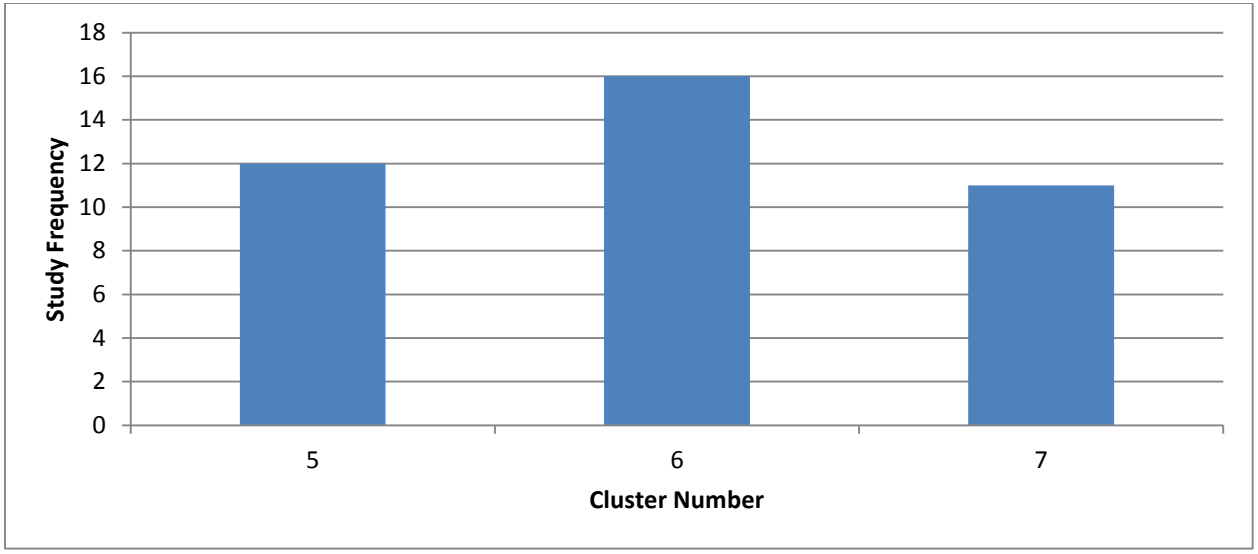

Figure 4.
Distribution of Cluster Solutions for Individual Studies

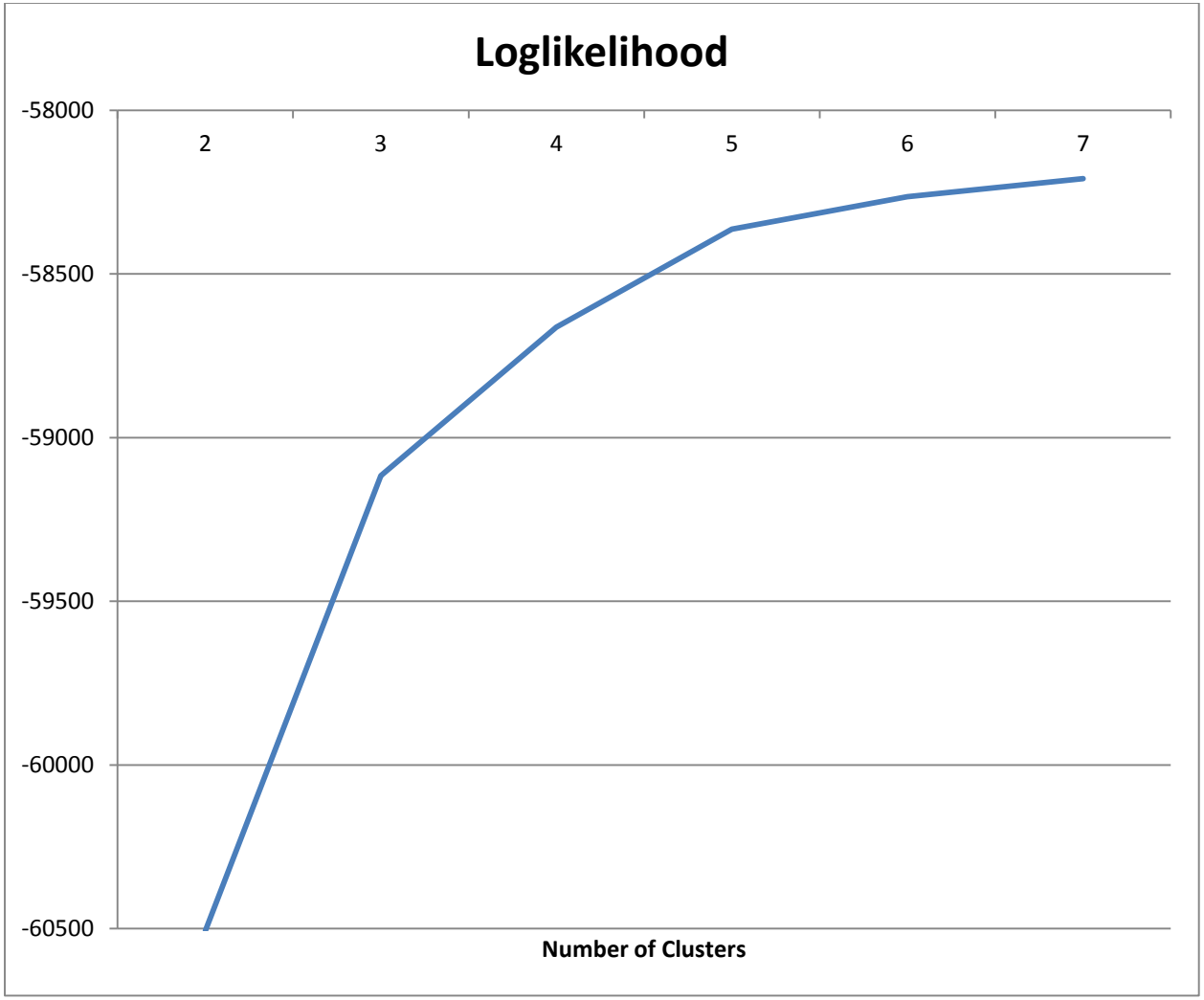

Figure 5.
LPA Loglikelihood results

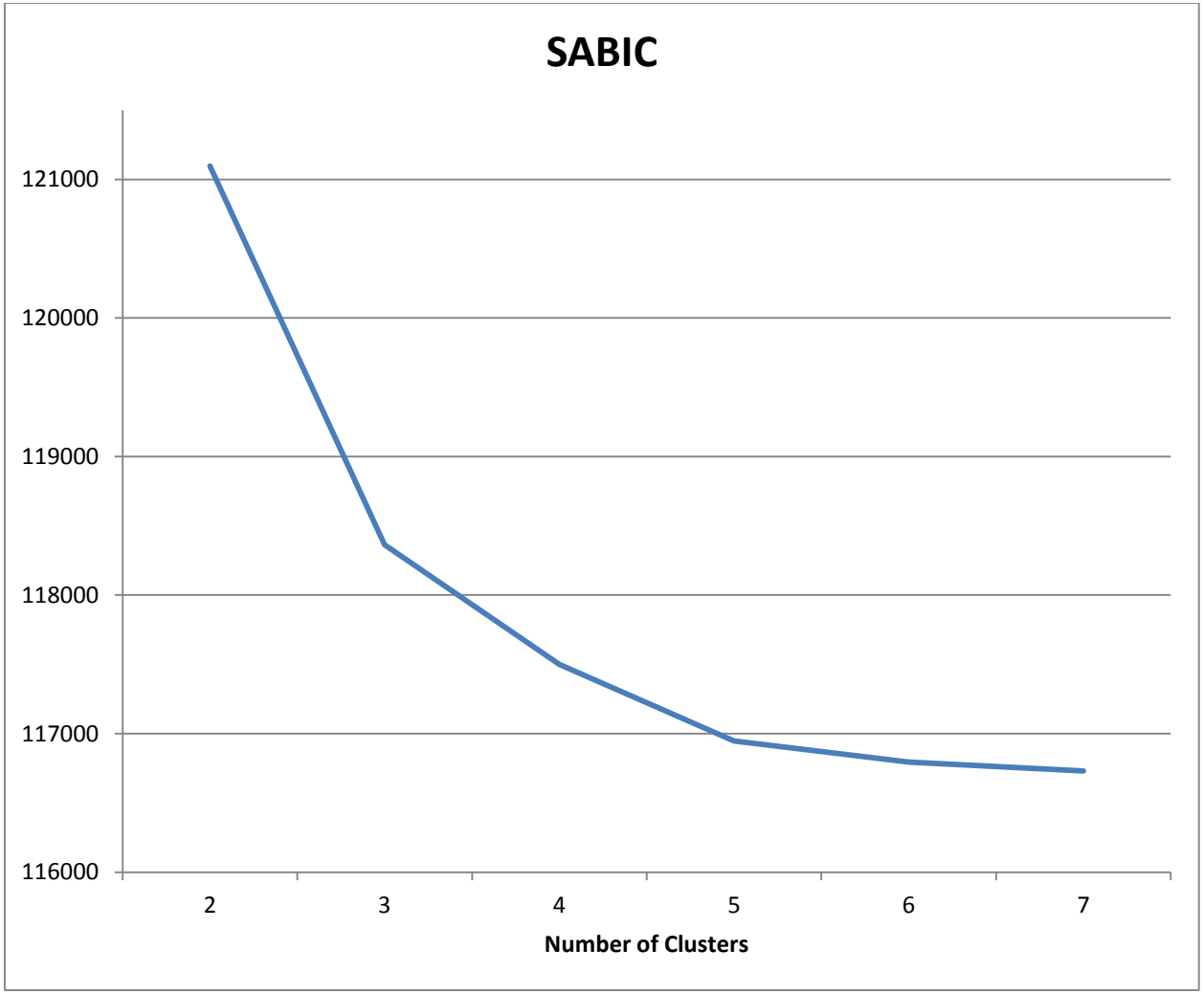

Figure 6.
LPA SABIC results

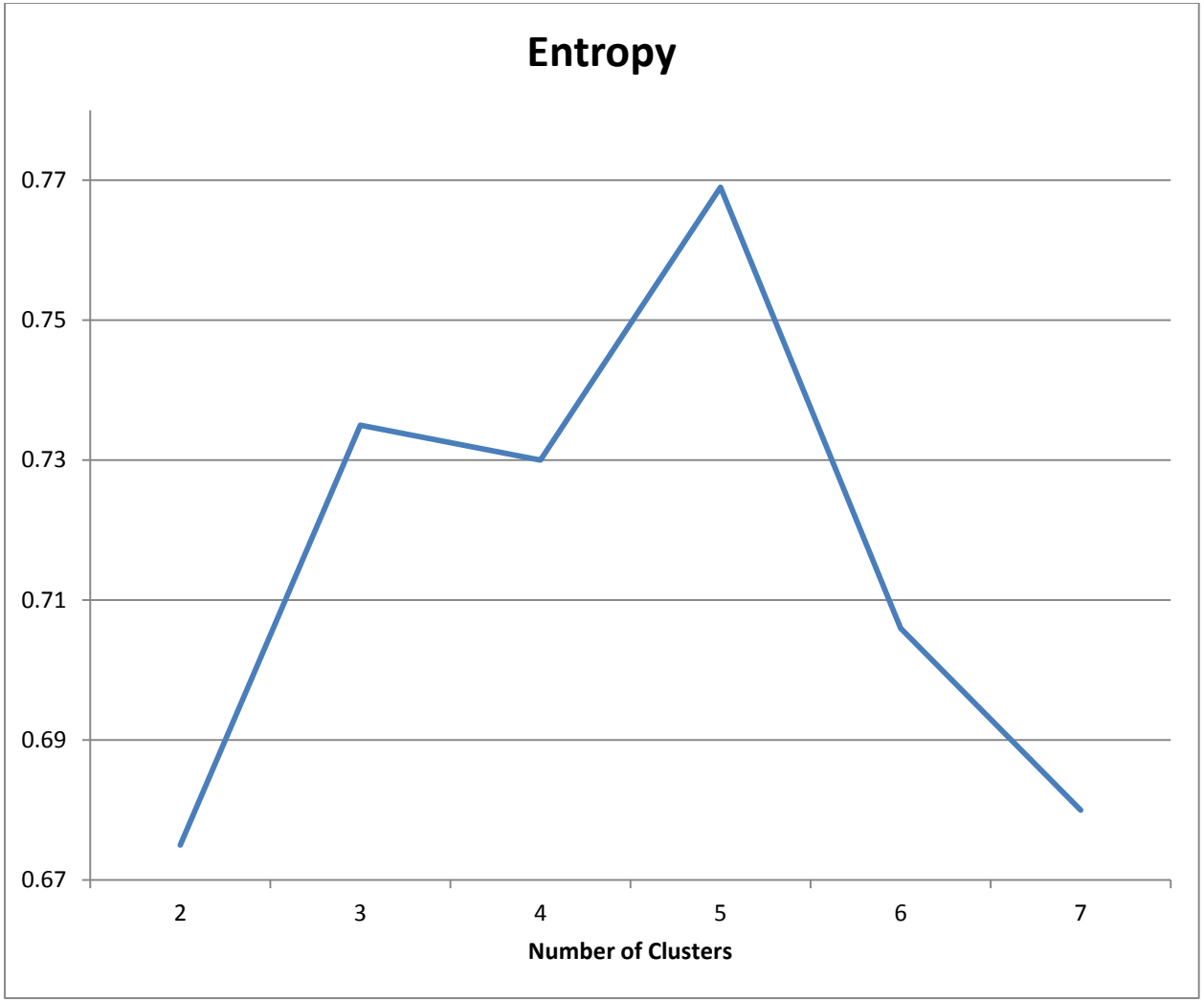

Figure 7.
LPA Entropy results.

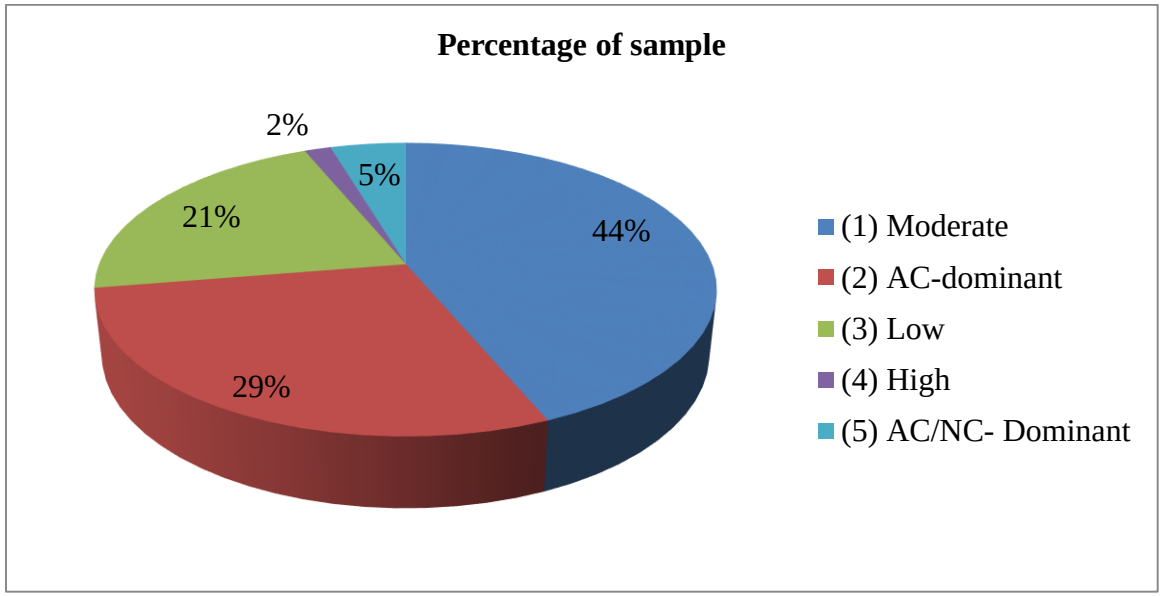

Figure 8.
Percentage of Sample per Cluster

APPENDIX B

TABLES

Table 1. *Relevant Sample Characteristics for Each Primary Sample*

Reference	Sample #	N	% Male	Sample tenure	Industry Category[a]	North American[b]	Measure[c]	Published[d]
Bergman (2012)	1	303	51.50%	7.63	5	1	1	0
Bergman et al. (2012)	1	254	46.40%	0.75	6	1	3	0
	2	131	45.70%	2.67	6	0	3	0
Bergman (2001)	1	300	38.00%	5.70	5	1	3	0
Bingham et al. (2012)	1	300	NA	7.88	NA	1	1	0
	2	271	NA	2.88	6	1	1	0
Carpenter & Berry (2012)	1	241	41.90%	1.51	5	1	1	0
Kabins & Heckert (2008)	1	97	80.90%	7.83	4	1	3	0
	2	125	6.50%	9.02	4	1	3	0
Lee et al. (2001)	1	227	NA	NA	NA	0	NA	1
Markovits et al. (2007)	1	484	47.30%	11.00	5	0	3	1
Markovits et al. (2010)	1	618	50.00%	NA	5	0	3	1
Markovits et al. (2008)	1	521	48.50%	7.00	5	0	3	1
Markovitz (2011)	1	643	42.40%	5.00	5	0	4	1
McInnis (2012)	1	291	41.10%	4.83	5	1	3	0
McInnis et al. (2009)	1	301	53.00%	6.80	5	1	3	1
	2	147	50.70%	5.80	5	1	3	1
McNally (2010)	1	287	57.00%	2.00	6	1	3	1
Meyer et al. (2012)	1	402	15.20%	6.63	5	1	3	1

Note. [a] for Industry category, 1 = Manufacturing, 2 = Healthcare, 3= Finance and insurance, 4= Other, 5 = Mixed industries, 6 = Student sample. [b] for North American, 0 = not North American Sample, 1 = North American Sample. [C] for measure, 1= Allen & Meyer (1990), 1' = revised version of Allen & Meyer (1990), 2 = Allen & Meyer (1996), 3 = Meyer, Allen, & Smith (1993), 3' = revised version of Meyer, Allen, & Smith (1993), 4 = Powell & Meyer (2004), 5 = Meyer, Barak, & Vandenberghe (1996), 6 = mixed measures. [d] for published, 0 = unpublished, 1 = published.

Table 1. (continued)

Reference	Sample #	N	% Male	Sample tenure	Industry Category[a]	North American[b]	Measure[c]	Published[d]
Leiva et al. (2004)	1	530	35.00%	5.07	6	1	3'	0
Topolnytsky (2002)	1	699	32.70%	10.79	4	1	3	1
Tsoumbris & Xenikou (2010)	1	157	36.30%	NA	5	0	3	1
Lapointe et al. (2011)	1	404	46.20%	7.41	5	1	3'	1
Stinglhamber et al. (2002)	1	650	53.50%	4.75	5	0	3'	1
Vandenberghe & Peiro (1999)	1	998	58.70%	13.06	5	0	1'	1
Bentein et al. (2005)	1	578	71.50%	3.67	5	0	3	1
Vandenberghe et al. (2007)	1	133	46.60%	1.01	4	0	3'	1
Vandenberghe et al. (2001)	1	579	42.40%	11.30	4	0	6	1
Vandenberghe et al. (2011)	1	515	36.10%	3.15	4	1	3'	1
Vandenberghe & Tremblay (2008)	1	232	47.20%	10.03	4	0	3'	1
	2	221	81.40%	5.09	5	0	3'	1
Vandenberghe & Panaccio (2012)	1	211	55.70%	4.01	5	0	3	1
	2	146	67.80%	6.60	5	0	3	1
	3	301	46.50%	9.16	5	0	3	1
Wasti (2005)	1	326	82.40%	2.81	4	0	6	1
	2	906	54.70%	2.28	5	0	3	1
	3	1124	84.80%	5.66	5	0	6	1
Wasti (2002a)	1	457	91.40%	8.14	NA	0	6	0
Wasti (2002b)	1	350	47.20%	3.51	4	0	3	1
Wasti & Can (2008)	1	445	80.80%	3.33	4	0	5	1

Table 2. LPA Cluster Placement for Published Studies.

Profile	AC Mean	NC Mean	CC Mean
Low Profile			
Lee et al. (2010)	1.95	1.68	2.78
Markovits et al. (2007)	1.29	1.46	1.36
Markovits et al. (2010)	1.57	1.29	2.67
Markovits et al. (2008)	1.70	1.40	2.57
Markovits et al. (2011)	1.63	1.63	2.58
McInnis et al. (2009a)	1.34	1.05	1.20
McInnis et al. (2009b)	1.79	1.92	2.25
McNally (2010)	1.17	1.79	1.36
Meyer et al. (2012)	1.20	1.13	1.82
Topolnytsky et al. (2002)	1.72	1.17	1.89
Tsoumbris & Xenikou (2010)	1.04	1.40	2.66
Lapointe et al. (2011) - Van/Alex	2.32	1.15	2.00
Stinglehamber et al. (2002) Van/EJPA	2.84	1.18	1.73
Vandenberghe & Peiro (1999) Van/EJWOP	2.43	1.65	2.98
Bentein et al. (2005) Van/JAP05	2.78	1.24	2.17
Vandberghe et al. (2007) Van/JAP07	1.53	1.36	1.51
Vandenberghe et al. (2001) Van/JCCP	2.52	1.07	2.96
Vandenberghe & Tremble (2008) Van/JBP1	2.48	1.43	1.81
Vandenberghe & Tremble (2008) Van/JBP2	1.44	1.10	1.26
Vandeberghe & Pannacio (2012) Van/JVB1	2.57	1.12	1.71
Vandeberghe & Pannacio (2012) Van/JVB2	2.53	1.54	1.52
Vandeberghe & Pannacio (2012) Van/JVB3	2.53	1.52	2.13
Wasti 1 (2005) CHRM	2.08	1.61	2.43
Wasti 2 (2005) Genoto	2.58	1.91	2.21
Wasti 3 (2005) Precrisis	2.31	1.95	1.97
Wasti (2002). Temsa	1.67	1.44	2.29
Wasti & Can (2008) Tez	1.35	1.28	1.68
Low Profile Mean	**1.94**	**1.42**	**2.06**
Low Profile SD	**0.56**	**0.27**	**0.53**
Medium Profile			
Lee et al. (2002)	2.79	2.61	2.92
Markovits et al. (2007)	3.16	2.97	3.62
Markovits et al. (2010)	2.93	2.95	3.43
Markovits et al. (2008)	2.49	2.31	2.75
Markovits et al. (2011)	2.79	2.92	3.19
McInnis et al. (2009a)	2.89	2.60	2.65

McInnis et al. (2009b)	2.85	2.65	2.64
McNally (2010)	3.30	3.31	3.58
Meyer et al. (2012)	2.74	2.32	2.17
Topolnytsky et al. (2002)	3.45	2.78	2.75
Tsoumbris & Xenikou (2010)	2.41	1.99	2.73
Lapointe et al. (2011) - Van/Alex	3.26	2.54	2.67
Stinglehamber et al. (2002) Van/EJPA	3.21	2.11	2.24
Vandenberghe & Peiro (1999) Van/EJWOP	3.19	2.39	2.75
Bentein et al. (2005) Van/JAP05	3.35	3.04	2.21
Vandberghe et al. (2007) Van/JAP07	1.93	1.65	2.71
Vandenberghe et al. (2001) Van/JCCP	2.99	1.75	2.90
Vandenberghe & Tremble (2008) Van/JBP1	3.23	2.46	2.32
Vandenberghe & Tremble (2008) Van/JBP2	2.84	1.51	2.21
Vandeberghe & Pannacio (2012) Van/JVB1	3.43	2.44	2.47
Vandeberghe & Pannacio (2012) Van/JVB2	3.87	3.58	2.88
Vandeberghe & Pannacio (2012) Van/JVB3	3.50	2.50	2.67
Wasti 1 (2005) CHRM	2.91	2.45	2.67
Wasti 2 (2005) Genoto	2.94	2.64	2.57
Wasti 3 (2005) Precrisis	2.77	2.71	2.46
Wasti & Can (2008) Tez	2.01	1.89	2.26
Medium Profile Mean	**2.97**	**2.50**	**2.71**
Medium Profile SD	**0.44**	**0.49**	**0.40**
CC-Dominant			
Lee et al. (2002)	1.88	2.97	3.53
Markovits et al. (2007)	2.19	1.94	3.41
Markovits et al. (2010)	2.31	2.01	3.32
Markovits et al. (2008)	2.96	3.07	3.18
McInnis et al. (2009a)	1.89	1.49	3.32
McInnis et al. (2009b)	1.64	2.29	3.83
McNally (2010)	2.12	2.21	3.59
Meyer et al. (2012)	1.94	1.93	3.88
Topolnytsky et al. (2002)	2.01	1.32	3.53
Tsoumbris & Xenikou (2010)	3.12	3.18	3.47
Lapointe et al. (2011) - Van/Alex	2.43	1.13	3.07
Stinglehamber et al. (2002) Van/EJPA	2.75	1.23	3.42
Vandberghe et al. (2007) Van/JAP07	1.85	1.37	4.32
Vandenberghe & Tremble (2008) Van/JBP1	1.78	1.38	4.01
Vandenberghe & Tremble (2008) Van/JBP2	3.08	1.31	4.62
Vandeberghe & Pannacio (2012) Van/JVB1	2.79	1.27	3.07

Vandeberghe & Pannacio (2012) Van/JVB2	2.82	1.75	3.44
Vandeberghe & Pannacio (2012) Van/JVB3	2.46	1.57	3.66
Wasti 3 (2005) Precrisis	1.97	2.50	3.11
Wasti (2002). Temsa	2.46	2.74	3.97
CC Profile Mean	**2.32**	**1.93**	**3.59**
CC Profile SD	**0.46**	**0.67**	**0.41**
NC-Dominant			
Lapointe et al. (2011) - Van/Alex	3.82	4.02	2.95
Bentein et al. (2005) Van/JAP05	3.43	3.88	2.27
Wasti et al. 2 (2005) Genoto	4.24	4.93	4.26
Wasti et al. 3 (2005) Precrisis	3.31	3.21	2.89
NC-Dominant Mean	**3.70**	**4.01**	**3.09**
NC-Dominant SD	**0.42**	**0.71**	**0.84**
NC/CC-Dominant			
Markovits et al. (2011)	1.00	3.50	3.17
McInnis et al. (2009a)	4.44	4.79	4.70
McInnis et al. (2009b)	2.81	3.71	3.46
Stinglehamber et al. (2002) Van/EJPA	3.02	3.35	3.85
Wasti 2 (2005) Genoto	2.37	3.62	3.58
NC-Dominant Mean	**2.73**	**3.79**	**3.75**
NC-Dominant SD	**1.24**	**0.57**	**0.58**
AC/CC-Dominant			
Meyer et al. (2012)	3.46	3.18	3.30
Topolnytsky et al. (2002)	2.82	2.02	2.61
Tsoumbris & Xenikou (2010)	4.86	2.48	4.47
Lapointe et al. (2011) - Van/Alex	3.00	1.85	2.66
Vandenberghe & Peiro (1999) Van/EJWOP	3.41	1.79	2.84
Vandberghe et al. (2007) Van/JAP07	3.20	2.98	3.03
Vandenberghe et al. (2001) Van/JCCP	3.40	2.45	3.05
Vandenberghe & Tremble (2008) Van/JBP2	4.31	2.98	4.38
Vandeberghe & Pannacio (2012) Van/JVB1	2.78	1.85	2.18
Wasti & Can (2008) Tez	2.85	2.49	2.57
AC/CC-Dominant Mean	**3.41**	**2.41**	**3.11**
AC/CC-Dominant SD	**0.68**	**0.52**	**0.76**
AC-Dominant			
Lee et al. (2002)	3.96	3.09	2.90

Markovits et al. (2007)	3.62	2.37	2.84
Markovits et al. (2010)	3.78	2.35	2.92
Markovits et al. (2008)	3.88	1.95	2.63
Markovits et al. (2011)	2.88	1.72	2.17
McInnis et al. (2009a)	2.48	1.86	1.66
McInnis et al. (2009b)	3.86	3.23	2.91
McNally (2010)	3.12	2.32	2.41
Topolnytsky et al. (2002)	3.42	1.44	1.76
Tsoumbris & Xenikou (2010)	3.56	2.53	2.48
Stinglehamber et al. (2002) Van/EJPA	3.54	3.16	2.17
Vandenberghe & Peiro (1999) Van/EJWOP	3.54	3.03	3.01
Bentein et al. (2005) Van/JAP05	3.29	2.14	2.42
Vandberghe et al. (2007) Van/JAP07	2.91	1.87	1.94
Vandenberghe & Tremble (2008) Van/JBP1	3.67	1.44	2.09
Vandenberghe & Tremble (2008) Van/JBP2	3.49	2.40	2.23
Vandeberghe & Pannacio (2012) Van/JVB1	3.66	3.05	2.31
Vandeberghe & Pannacio (2012) Van/JVB2	3.54	2.13	2.21
Vandeberghe & Pannacio (2012) Van/JVB3	3.99	1.59	2.30
Wasti 1 (2005) CHRM	4.05	3.80	3.13
Wasti 2 (2005) Genoto	3.60	3.17	2.59
Wasti 3 (2005) Precrisis	4.61	3.19	2.30
Wasti (2002). Temsa	3.14	2.68	2.64
Wasti & Can (2008) Tez	3.37	3.14	2.90
AC-Dominant Mean	**3.54**	**2.49**	**2.46**
AC-Dominant SD	**0.44**	**0.66**	**0.40**
AC/NC-Dominant			
Markovits et al. (2010)	4.00	3.66	3.28
Markovits et al. (2008)	3.73	3.49	3.35
Markovits et al. (2011)	3.81	3.27	2.96
McInnis et al. (2009a)	4.03	4.02	3.61
McNally (2010)	4.07	3.28	2.54
Meyer et al. (2012)	4.18	3.51	2.10
Topolnytsky et al. (2002)	3.99	3.72	2.75
Tsoumbris & Xenikou (2010)	4.27	3.50	3.05
Lapointe et al. (2011) - Van/Alex	3.40	3.29	2.71
Stinglehamber et al. (2002) Van/EJPA	4.22	4.06	2.50
Vandenberghe & Peiro (1999) Van/EJWOP	3.70	3.65	2.88
Bentein et al. (2005) Van/JAP05	4.16	4.69	2.53
Vandberghe et al. (2007) Van/JAP07	3.64	3.71	2.04

Vandenberghe et al. (2001) Van/JCCP	4.09	3.83	2.87
Vandenberghe & Tremble (2008) Van/JBP1	3.71	3.47	2.47
Vandenberghe & Tremble (2008) Van/JBP2	3.66	3.46	2.44
Vandeberghe & Pannacio (2012) Van/JVB1	3.59	3.80	2.39
Vandeberghe & Pannacio (2012) Van/JVB2	3.85	3.81	1.52
Vandeberghe & Pannacio (2012) Van/JVB3	4.18	3.77	2.80
Wasti 1 (2005) CHRM	3.56	3.18	2.84
Wasti 2 (2005) Genoto	3.87	3.86	2.89
Wasti 3 (2005) Precrisis	3.90	3.56	2.93
Wasti (2002). Temsa	3.84	3.50	3.03
Wasti & Can (2008) Tez	3.93	3.82	3.20
AC/NC-Dominant Mean	**3.89**	**3.66**	**2.74**
AC/NC-Dominant SD	**0.23**	**0.32**	**0.46**
High			
Lee et al. (2002)	4.61	4.02	3.24
Markovits et al. (2007)	4.16	3.89	3.53
Markovits et al. (2010)	4.48	4.35	3.70
Markovits et al. (2008)	4.52	4.30	3.93
Markovits et al. (2011)	4.46	4.28	3.81
McInnis et al. (2009a)	3.36	3.30	3.05
McInnis et al. (2009b)	3.94	4.05	4.17
McNally (2010)	4.20	4.09	3.57
Meyer et al. (2012)	4.47	4.26	3.86
Tsoumbris & Xenikou (2010)	4.86	4.53	3.66
Lapointe et al. (2011) - Van/Alex	4.49	4.92	3.16
Vandenberghe & Peiro (1999) Van/EJWOP	4.04	4.43	3.24
Vandberghe et al. (2007) Van/JAP07	3.74	4.45	3.83
Vandenberghe et al. (2001) Van/JCCP	3.66	3.05	3.32
Vandenberghe & Tremble (2008) Van/JBP1	4.27	4.64	2.86
Vandenberghe & Tremble (2008) Van/JBP2	4.44	4.54	2.80
Vandeberghe & Pannacio (2012) Van/JVB1	4.16	4.85	2.98
Vandeberghe & Pannacio (2012) Van/JVB2	3.07	4.17	4.75
Vandeberghe & Pannacio (2012) Van/JVB3	4.64	4.66	4.22
Wasti 1 (2005) CHRM	4.27	4.43	3.70
Wasti 2 (2005) Genoto	4.43	4.52	3.02
Wasti 3 (2005) Precrisis	4.67	4.09	3.11
Wasti (2002). Temsa	4.09	4.19	3.70
Wasti & Can (2008) Tez	4.59	4.44	3.38
High Mean	**4.23**	**4.27**	**3.52**

High SD	**0.43**	**0.42**	**0.48**

Table 3. Covariate ANOVA Results

Analysis	Cluster Sample Means	ANOVA *p* value
Percentage of Males	5 = 51% 6 = 44% 7 = 50%	$p > .05$
Tenure	5 = 5.93 6 = 6.30 7 = 3.65	$p > .05$
Sample Size	5 = 338.17 6 = 427.50 7 = 297.42	$p > .05$
Percentage of Vandenberghe Studies	5 = 17% 6 = 38% 7 = 33%	$p > .05$
Percentage of North American Studies	5 = 42% 6 = 44% 7 = 33%	$p > .05$
Percentage of Published Studies	5 = 50% 6 = 69% 7 = 75%	$p > .05$
Meyer Measure of Commitment	-	$p > .05$

Table 4. Fit Statistics from LPA

Number of Classes	2	3	4	5	6	7
Loglikelihood	-60506.04	-59116.51	-58662.29	-58362.84	-58263.82	-58209.04
SABIC	121096.65	118363.13	117500.23	116946.88	116794.37	116730.35
BLRT P-value	0.00	0.00	0.00	0.00	0.00	0.00
Entropy	0.68	0.74	0.73	0.77	0.71	0.68
free parameters	13	20	27	34	41	48

Table 5. Sample and Study Demographics

Descriptive	Mean	*SD*
Number of Clusters	6.00	0.78
Tenure	5.39	3.37
Percentage of Vandenberghe Studies	30%	0.46
Percentage of North American Studies	40%	0.50
Sample Size	361.68	188.94
Percentage of Male Participants	65%	0.48

Table 6. Final Cluster Means

Cluster	AC	NC	CC	N	% of sample
(1) Moderate Profile	3.10	2.65	2.75	7007	44%
(2) AC-dominant Profile	3.83	3.65	3.10	4619	29%
(3) Low Profile	2.46	1.43	2.43	3422	21%
(4) High Profile	4.30	3.92	3.46	259	2%
(5) AC/NC- Dominant Profile	4.78	4.53	3.52	744	5%

Table 7. Posterior Probabilities

Cluster	1	2	3	4	5
(1) Moderate Profile	**0.83**	0.10	0.06	0.00	0.00
(2) AC-Dominant Profile	0.16	**0.82**	0.00	0.00	0.02
(3) Low Profile	0.13	0.00	**0.88**	0.00	0.00
(4) High Profile	0.03	0.16	0.00	**0.81**	0.01
(5) AC/NC- Dominant Profile	0.00	0.14	0.00	0.00	**0.86**

Table 8. Organizational Identification Meta-Analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	SD_d	$\bar{\delta}$	SD_δ	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	867	4	-0.78	0.12	-1.01	0.00	100%	-1.01:-1.01	-1.23:-0.82
Low Profile	630	4	0.83	0.37	1.04	0.44	29%	0.48:1.60	0.79:1.34
High Profile	-	-	-	-	-	-	-	-	-
AC/NC-Dominant Profile	453	3	-1.80	0.19	-3.00	0.00	100%	-3.00:-3.00	-4.26:-2.33
AC-Dominant Profile									
Low Profile	630	4	1.45	0.45	2.00	0.72	26%	1.09:2.92	1.65:2.50
High Profile	-	-	-	-	-	-	-	-	-
AC/NC-Dominant Profile	453	3	-0.96	0.23	-1.28	0.00	100%	-1.28:-1.28	-1.74:-0.92
Low Profile									
High Profile	-	-	-	-	-	-	-	-	-
AC/NC-Dominant Profile	147	3	-2.25	0.47	-4.77	0.00	100%	-4.77:-4.77	-5.50:-2.91
High Profile									
AC/NC-Dominant	-	-	-	-	-	-	-	-	-

Table 9. Perceived Organizational Support Meta-Analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	***SD*$_d$**	$\bar{\delta}$	***SD*$_\delta$**	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	1039	3	-0.65	0.13	-0.76	0.09	73%	-0.87:-0.64	-0.93:-0.59
Low Profile	1215	3	0.57	0.14	0.67	0.12	54%	0.52:0.82	0.53:0.82
High Profile	-	-	-	-	-	-	-	-	-
AC/NC-Dominant Profile	736	2	-1.50	0.12	-1.92	0.00	100%	-1.92:-1.92	-2.32:-1.61
AC-Dominant Profile									
Low Profile	718	3	1.14	0.18	1.38	0.16	62%	1.18:1.59	1.16:1.64
High Profile	-	-	-	-	-	-	-	-	-
AC/NC-Dominant Profile	273	2	-0.87	0.01	-1.04	0.00	100%	-1.04:-1.04	-1.05:-0.68
Low Profile									
High Profile	-	-	-	-	-	-	-	-	-
AC/NC-Dominant Profile	424	2	-1.92	0.18	-2.60	0.16	87%	-2.81:-2.40	-3.35:-2.12
High Profile									
AC/NC-Dominant	-	-	-	-	-	-	-	-	-

Table 10. Idiocentrism Meta-Analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	***SD*$_d$**	$\bar{\delta}$	***SD*$_\delta$**	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	3458	8	0.03	0.22	0.03	0.30	19%	-0.35:0.41	-0.07:0.13
Low Profile	2085	8	-0.19	0.31	0.25	0.39	25%	-0.76:0.25	-0.42:-0.09
High Profile	1478	5	0.02	0.26	0.01	0.27	44%	-0.34:0.36	-0.21:0.22
AC/NC-Dominant Profile	1873	5	0.07	0.26	0.10	0.26	49%	-0.23:0.43	-.09:0.30
AC-Dominant Profile									
Low Profile	2009	8	-0.26	0.51	-0.36	0.73	10%	-1.30:0.58	-0.53:-0.19
High Profile	1416	5	-0.06	0.25	-0.07	0.26	49%	-0.40:0.25	-0.30:0.14
AC/NC-Dominant Profile	1840	7	0.04	0.14	0.08	0.00	100%	0.08:0.08	-0.12:0.27
Low Profile									
High Profile	352	5	0.17	0.45	0.19	0.50	36%	-0.45:0.83	-0.13:0.53
AC/NC-Dominant Profile	496	7	0.23	0.50	0.30	0.58	34%	-0.45:1.04	-0.01:0.62
High Profile									
AC/NC-Dominant	243	5	0.17	0.33	0.24	0.00	100%	0.24:0.24	-0.16:0.66

Table 11. Psychological Contracts Meta-Analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	***SD*$_d$**	$\bar{\delta}$	***SD*$_\delta$**	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	559	3	-0.82	0.04	-1.04	0.00	100%	-1.04:-1.04	-1.32:-0.81
Low Profile	433	3	0.53	0.06	0.66	0.00	100%	0.66:0.66	0.41:0.95
High Profile	330	3	-1.36	0.28	-1.84	0.00	100	-1.84:-1.84	-2.57:-1.38
AC/NC-Dominant Profile	-	-	-	-	-	-	-	-	-
AC-Dominant Profile									
Low Profile	372	3	1.28	0.09	1.77	0.00	100%	1.77:1.77	1.39:2.30
High Profile	269	3	-0.51	0.16	-0.65	0.00	100%	-0.65:-0.65	-1.14:-0.25
AC/NC-Dominant Profile	231	2	-0.96	0.23	-1.23	0.38	49%	-1.72:-0.75	-1.86:-0.79
Low Profile									
High Profile	143	3	-1.80	0.23	-2.74	0.00	100%	-2.74:-2.74	-5.09:-1.88
AC/NC-Dominant Profile	-	-	-	-	-	-	-	-	-
High Profile									
AC/NC-Dominant	264	2	-0.3	0.38	-0.3	0.4	32%	-0.82:0.21	-0.71:0.07

Table 12. Age Meta-Analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	SD_d	$\bar{\delta}$	SD_δ	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	9712	35	-0.12	0.16	-0.10	0.11	54%	-0.24:0.04	-0.14:-0.06
Low Profile	8549	35	0.00	0.19	0.00	0.10	64%	-0.13:0.13	-0.05:0.04
High Profile	3467	17	-0.25	0.29	-0.29	0.24	47%	-0.59:0.02	-0.40:-0.18
AC/NC-Dominant Profile	6026	30	-0.41	0.39	-0.30	0.37	19%	-0.76:0.17	-0.36:-0.23
AC-Dominant Profile									
Low Profile	6589	35	0.13	0.30	0.10	0.22	33%	-0.18:0.38	0.05:0.15
High Profile	2668	17	-0.07	0.32	-0.08	0.26	45%	-0.41:0.25	-0.19:0.03
AC/NC-Dominant Profile	4343	30	-0.21	0.62	-0.19	0.29	31%	-0.56:0.19	-0.26:-0.12
Low Profile									
High Profile	1046	16	-0.36	0.31	-0.40	0.16	81%	-0.60:-0.20	-0.57:-0.25
AC/NC-Dominant Profile	2830	29	-0.32	0.48	-0.17	0.35	24%	-0.62:0.28	-0.24:-0.10
High Profile									
AC/NC-Dominant	645	16	-0.23	0.37	-0.25	0.13	90%	-0.41:-0.07	-0.44:-0.06

Table 13. Sex Meta-Analyses

Cluster Comparison	*N*	*k*	$\bar{d}$	SD_d	$\bar{\delta}$	SD_δ	% var	90% CV	95% CI
Moderate Profile									
AC-Dominant Profile	7241	27	-0.01	0.19	0.01	0.12	47%	-0.15:0.16	-0.03:0.05
Low Profile	7348	29	0.00	0.16	0.01	0.07	77%	-0.08:0.09	-0.03:0.05
High Profile	1973	10	-0.18	0.39	-0.19	0.37	27%	-0.66:0.28	-0.33:-0.05
AC/NC-Dominant Profile	4410	21	-0.07	0.31	-0.07	0.20	43%	-0.32:0.19	-0.14:0.01
AC-Dominant Profile									
Low Profile	5475	28	0.00	0.25	-0.01	0.16	44%	-0.20:0.19	-0.06:0.05
High Profile	1686	10	-0.20	0.33	-0.22	0.28	40%	-0.58:0.14	-0.36:-0.08
AC/NC-Dominant Profile	3009	21	-0.02	0.26	-0.05	0.11	75%	-0.20:0.10	-0.13:0.03
Low Profile									
High Profile	599	10	-0.25	0.41	-0.36	0.32	52%	-0.77:0.04	-0.57:-0.16
AC/NC-Dominant Profile	2048	20	-0.10	0.33	-0.09	0.13	68%	-0.26:0.07	-0.18:-0.01
High Profile									
AC/NC-Dominant	341	9	0.18	0.40	0.19	0.21	78%	-0.07:0.05	-0.06:0.45

Note. Larger percentages of women reflect higher values (i.e., men = 0; women = 1). For example, the high commitment profile had more women than the low profile.

Table 14. Marital Status Meta-Analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	SD_d	$\bar{\delta}$	SD_δ	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	4194	10	-0.17	0.14	-0.19	0.11	55%	-0.33:-0.5	-0.27:-0.12
Low Profile	2925	10	0.09	0.14	0.10	0.06	87%	0.02:0.18	0.00:0.20
High Profile	2414	8	-0.28	0.33	-0.33	0.30	28%	-0.71:0.06	-0.47:-0.20
AC/NC-Dominant Profile	2314	7	-0.37	0.17	-0.43	0.06	87%	-.051:-0.35	-0.55:-0.31
AC-Dominant Profile									
Low Profile	2305	10	0.29	0.12	0.33	0.00	100%	0.33:0.33	0.22:0.44
High Profile	1929	7	-0.23	0.17	-0.27	0.07	86%	-0.37:-0.18	-0.40:-.15
AC/NC-Dominant Profile	1929	7	-0.23	0.17	-0.27	0.07	86%	-0.37:-0.18	-0.40:-.15
Low Profile									
High Profile	654	8	-0.42	0.29	-0.48	0.14	81%	-0.66:-0.30	-0.69:-0.28
AC/NC-Dominant Profile	667	7	-0.52	0.16	-0.60	0.00	100%	-0.60:-0.60	-.80:-0.41
High Profile									
AC/NC-Dominant	410	7	-0.12	0.24	-0.14	0.00	100%	-0.14:-0.14	-0.38:0.08

Table 15. Parental Status Meta-Analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	SD_d	$\bar{\delta}$	SD_δ	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	1793	4	-0.07	0.24	-0.07	0.27	15%	-0.41:0.29	-0.17:0.05
Low Profile	1339	4	0.29	0.19	0.36	0.13	57%	0.18:0.53	0.21:0.51
High Profile	1185	4	-0.28	0.17	-0.32	0.12	72%	-0.47:-0.16	-0.51:-0.13
AC/NC-Dominant Profile	1222	4	-0.14	0.11	-0.17	0.00	100%	-0.17:-0.17	-0.34:0.01
AC-Dominant Profile									
Low Profile	952	4	0.35	0.10	0.40	0.00	100%	0.40:0.40	0.24:0.58
High Profile	798	4	-0.22	0.09	-0.27	0.00	100%	-0.27:-0.27	-0.49:-0.07
AC/NC-Dominant Profile	835	4	-0.07	0.22	-0.10	0.16	60%	-0.31:0.10	-0.30:0.09
Low Profile									
High Profile	344	4	-0.58	0.08	-0.69	0.00	100%	-0.69:-0.69	-1.01:-0.42
AC/NC-Dominant Profile	381	4	-0.42	0.13	-0.51	0.00	100%	-0.51:-0.51	-0.78:-0.26
High Profile									
AC/NC-Dominant	227	4	0.14	0.14	0.15	0.00	100%	0.15:0.15	-0.17:0.48

Table 16. Education Meta-Analyses

Cluster Comparison	*N*	*k*	$\bar{d}$	SD_d	$\bar{\delta}$	SD_δ	% var	90% CV	95% CI
Moderate Profile									
AC-Dominant Profile	5756	18	0.21	0.28	0.23	0.27	20%	-0.11:0.58	0.17:0.29
Low Profile	4119	17	-0.09	0.28	-0.10	0.26	30%	0.42:0.23	-0.18:-0.02
High Profile	3270	15	0.04	0.32	0.05	0.28	36%	-0.32:0.41	-0.06:0.15
AC/NC-Dominant Profile	3478	15	0.20	0.25	0.22	0.19	56%	-0.02:0.46	0.11:0.33
AC-Dominant Profile									
Low Profile	3310	17	-0.37	0.58	-0.37	0.54	11%	-1.06:0.31	-0.46:-0.29
High Profile	2420	15	-0.15	0.26	-0.17	0.18	62%	-0.40:0.05	-0.29:-0.06
AC/NC-Dominant Profile	2722	15	0.00	0.21	0.00	0.08	88%	-0.10:0.10	-0.11:0.11
Low Profile									
High Profile	1142	14	0.05	0.44	0.04	0.36	39%	-0.42:0.50	-0.11:0.19
AC/NC-Dominant Profile	1255	14	0.27	0.45	0.28	0.35	40%	-0.17:0.73	0.13:0.43
High Profile									
AC/NC-Dominant	602	14	0.16	0.26	0.17	0.00	100%	0.17:0.17	-0.02:0.37

Table 17. Positive Affect Meta-Analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	***SD*$_d$**	$\bar{\delta}$	***SD*$_\delta$**	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	1342	4	-0.44	0.10	-0.54	0.00	100%	-0.54:-0.54	-0.69:-0.40
Low Profile	1411	4	0.27	0.13	0.33	0.01	99%	0.31:0.34	0.19:0.48
High Profile	360	2	-0.63	0.32	-0.76	0.28	50%	-1.12:-0.40	-1.20:-0.40
AC/NC-Dominant Profile	1014	4	-1.09	0.52	-1.32	0.81	11%	-2.35:-0.28	-1.62:-1.07
AC-Dominant Profile									
Low Profile	837	4	0.73	0.22	0.90	0.17	59%	0.68:1.12	0.71:1.12
High Profile	212	2	-0.26	0.18	-0.32	0.00	100%	-0.32:-0.32	-0.75:0.07
AC/NC-Dominant Profile	440	4	-0.58	0.41	-0.68	0.42	36%	-1.22:-0.15	-1.01:-0.40
Low Profile									
High Profile	138	2	-1.35	0.39	-1.71	0.57	42%	-2.45:-0.98	-2.65:-1.16
AC/NC-Dominant Profile	508	4	-1.49	0.35	-2.01	0.69	30%	-2.90:-1.13	-2.55:-1.63
High Profile									
AC/NC-Dominant	89	2	0.00	0.03	0.00	0.00	100%	0.00:0.00	-0.53:0.53

Table 18. Negative Affect Meta-Analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	SD_d	$\bar{\delta}$	SD_δ	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	915	4	0.06	0.03	0.07	0.00	100%	0.00:0.00	-0.09:0.24
Low Profile	1022	4	0.11	0.28	0.13	0.29	25%	-0.24:0.50	-0.03:0.30
High Profile	360	2	0.70	0.21	0.85	0.13	80%	0.69:1.01	0.53:1.25
AC/NC-Dominant Profile	689	4	0.14	0.25	0.16	0.15	74%	-0.03:0.36	-0.09:0.43
AC-Dominant Profile									
Low Profile	677	4	0.03	0.30	0.04	0.30	30%	-0.34:0.42	-0.15:0.23
High Profile	212	2	0.68	0.32	0.80	0.26	56%	0.46:1.14	0.42:1.27
AC/NC-Dominant Profile	342	4	0.14	0.27	0.16	0.06	96%	.08:0.24	-0.14:0.48
Low Profile									
High Profile	138	2	0.89	0.11	1.11	0.00	100%	1.11:1.11	0.65:1.74
AC/NC-Dominant Profile	466	4	-0.01	0.45	-0.02	0.44	29%	-0.58:0.53	-0.30:0.25
High Profile									
AC/NC-Dominant	89	2	-0.23	0.12	-0.27	0.00	100%	-0.27:-0.27	-0.84:0.24

Table 19. Job Security Meta-Analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	***SD$_d$***	$\bar{\delta}$	***SD$_\delta$***	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	2046	4	-0.03	0.32	-0.04	0.39	8%	-0.54:0.45	-0.16:0.06
Low Profile	984	4	-0.22	0.30	-0.26	0.31	32%	-0.66:0.14	-0.48:0.05
High Profile	772	3	0.02	0.68	-0.01	0.73	7%	-0.94:0.92	-0.24:0.22
AC/NC-Dominant Profile	1039	4	-0.32	0.48	-0.39	0.58	10%	-1.13:0.35	-0.59:-0.21
AC-Dominant Profile									
Low Profile	1258	4	-0.19	0.60	-0.19	0.70	7%	-1.08:0.70	-0.38:0.00
High Profile	978	3	0.08	0.33	0.09	0.35	25%	-0.35:0.53	-0.13:0.32
AC/NC-Dominant Profile	1313	4	-0.32	0.18	-0.41	0.16	57%	-0.61:-0.21	-0.59:-0.23
Low Profile									
High Profile	145	3	0.14	0.91	0.07	0.81	17%	-0.97:1.10	-0.36:0.49
AC/NC-Dominant Profile	251	4	-0.14	0.71	-0.20	0.78	15%	-1.20:0.80	-0.54:0.13
High Profile									
AC/NC-Dominant	178	3	-0.41	0.12	-0.52	100.00	100%	-0.52:-0.52	-0.97:-0.13

Table 20. Pay Satisfaction Meta-Analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	SD_d	$\bar{\delta}$	SD_δ	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	932	4	-0.20	0.17	-0.25	0.09	81%	-0.36:-0.14	-0.43:-0.08
Low Profile	1057	4	0.12	0.15	0.15	0.06	89%	0.08:0.23	-0.01:0.32
High Profile	-	-	-	-	-	-	-	-	-
AC/NC-Dominant Profile	731	4	-0.50	0.29	-0.62	0.27	51%	-0.97:-0.28	-0.92:-0.36
AC-Dominant Profile									
Low Profile	737	4	0.26	0.34	0.33	0.36	28%	-0.13:0.79	0.12:0.55
High Profile	-	-	-	-	-	-	-	-	-
AC/NC-Dominant Profile	411	4	-0.15	0.14	-0.18	0.00	100%	-0.18:-0.18	-0.48:0.11
Low Profile									
High Profile	-	-	-	-	-	-	-	-	-
AC/NC-Dominant Profile	536	4	-0.54	0.43	-0.66	0.48	32%	-1.27:-0.06	-1.02:-0.36
High Profile									
AC/NC-Dominant	-	-	-	-	-	-	-	-	-

Table 21. Coworker Satisfaction Meta-analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	SD_d	$\bar{\delta}$	SD_δ	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	3755	8	-0.20	0.31	-0.27	0.35	11%	-0.72:0.18	-0.35:-0.18
Low Profile	2522	8	0.19	0.38	0.25	0.42	15%	-0.29:0.79	0.13:0.38
High Profile	1469	5	-0.52	0.27	-0.63	0.27	39%	-0.97:-0.29	-0.83:-0.45
AC/NC-Dominant Profile	2266	8	-0.46	0.35	-0.59	0.38	26%	-1.07:-0.11	-0.75:-0.44
AC-Dominant Profile									
Low Profile	2311	8	0.42	0.69	0.52	0.82	5%	-0.53:1.58	0.39:0.66
High Profile	1402	5	-0.17	0.34	-0.20	0.34	26%	-0.64:0.23	-0.38:-0.03
AC/NC-Dominant Profile	2055	8	-0.26	0.19	-0.33	0.08	85%	-0.44:-0.22	-0.48:-0.20
Low Profile									
High Profile	346	5	-0.80	0.42	-0.98	0.39	50%	-1.48:-0.48	-1.37:-0.67
AC/NC-Dominant Profile	822	8	-0.52	0.65	-0.62	0.71	19%	-1.53:0.29	-0.88:-0.39
High Profile									
AC/NC-Dominant	242	5	-0.21	0.37	-0.23	0.20	78%	-0.48:0.02	-0.57:0.09

Table 22. Leadership Satisfaction Meta-Analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	SD_d	$\bar{\delta}$	SD_δ	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	3743	8	-0.24	0.34	-0.32	0.41	8%	-0.84:0.21	-0.40:-0.23
Low Profile	2514	8	0.27	0.37	0.35	0.43	15%	-0.20:0.91	0.23:0.48
High Profile	1460	5	-0.58	0.43	-0.71	0.49	17%	-1.34:-0.08	-0.92:-0.52
AC/NC-Dominant Profile	2253	8	-0.46	0.60	-0.58	0.75	7%	-1.54:0.38	-0.73:-0.44
AC-Dominant Profile									
Low Profile	2307	8	0.53	0.74	0.64	0.95	4%	-0.57:1.86	0.50:0.78
High Profile	1394	5	-0.20	0.34	-0.24	0.35	26%	-0.69:0.22	-0.42:-0.06
AC/NC-Dominant Profile	2046	8	-0.22	0.26	-0.28	0.24	42%	-0.58:0.03	-0.42:-0.14
Low Profile									
High Profile	345	5	-0.82	0.80	-0.97	1.06	12%	-2.33:0.38	-1.36:-0.65
AC/NC-Dominant Profile	817	8	-0.64	0.95	-0.75	1.21	7%	-2.30:0.80	-1.00:-0.53
High Profile									
AC/NC-Dominant	240	5	-0.13	0.46	-0.17	0.38	49%	-0.66:0.32	-0.51:0.16

Table 23. Overall Job Satisfaction Meta-Analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	SD_d	$\bar{\delta}$	SD_δ	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	1229	6	-0.54	0.21	-0.70	0.24	47%	-1.01:0.40	-0.90:-0.53
Low Profile	1323	6	0.62	0.36	0.81	0.41	24%	.029:1.34	0.64:1.01
High Profile	-	-	-	-	-	-	-	-	-
AC/NC-Dominant Profile	766	4	-1.13	0.60	-1.52	0.82	19%	-2.56:-0.47	-1.98:-1.17
AC-Dominant Profile									
Low Profile	760	6	1.04	0.46	1.41	0.71	22%	.50:2.32	1.14:1.75
High Profile	-	-	-	-	-	-	-	-	-
AC/NC-Dominant Profile	334	4	-0.82	0.57	-1.03	0.63	33%	-1.84:-0.22	-1.55:-0.64
Low Profile									
High Profile	-	-	-	-	-	-	-	-	-
AC/NC-Dominant Profile	425	4	-1.18	0.53	-1.66	0.86	28%	-2.75:-0.57	-2.32:-1.22
High Profile									
AC/NC-Dominant	-	-	-	-	-	-	-	-	-

Table 24. Organizational Size Meta-Analyses

Cluster Comparison	***N***	***k***	$\bar{d}$	SD_d	$\bar{\delta}$	SD_δ	**% var**	**90% CV**	**95% CI**
Moderate Profile									
AC-Dominant Profile	881	4	0.02	0.13	0.02	0.00	100%	0.02:0.02	-0.13:0.17
Low Profile	905	4	-0.22	0.18	-0.25	0.12	64%	-0.40:-0.10	-0.41:-0.09
High Profile	326	3	0.14	0.07	0.16	0.00	100%	0.16:0.16	-0.19:0.52
AC/NC-Dominant Profile	508	3	0.47	0.30	0.51	0.24	49%	0.20:0.82	0.25:0.80
AC-Dominant Profile									
Low Profile	694	4	-0.26	0.12	-0.30	0.00	100%	-0.30:-0.30	-0.48:-0.12
High Profile	267	3	0.19	0.20	0.21	0.00	100%	0.21:0.21	-0.16:0.60
AC/NC-Dominant Profile	325	3	0.43	0.21	0.47	0.00	100%	0.47:0.47	0.17:0.81
Low Profile									
High Profile	141	3	0.52	0.10	0.58	0.00	100%	0.58:0.58	0.15:1.10
AC/NC-Dominant Profile	379	3	0.77	0.14	0.86	0.00	100%	0.86:0.86	0.58:1.20
High Profile									
AC/NC-Dominant	-	-	-	-	-	-	-	-	-

Table 25. Sample Size for Published Studies

Study	Low	CC	Moderate	AC	AC/NC	High
Lee	34	14	105	61		13
Mark 07	28	74	225		155	80
Mark 2010	92		218	32	197	98
Mark 08	5	70	193	49		167
Mark 11	26	198	82	6	129	80
McInnis09a	31	26	23	10	98	92
McInnis09b	17	6	47	54		8
McNally	3	17	140	37	29	61
Meyer et al. (12)	24	32	54	18	128	37
Topolnytsky	50	87	180	33	60	
Tsombris	12	31	42	26	28	5
Vandenberghe_Alex	65	42	85		55	11
Vandenberghe EJPA	245	38	223	90	42	
Vandenberghe ejwop	215	0	287	157	105	49
Vandenberghe jap05		0				
vandenberghe jap07	13	6	14	44	18	2
vandenberghe jccp	349		126		13	40
vandenberghe jbp1		15	105	40		37
vandenberghe jbp2	5	3	79	52	60	16
Vandenberghe jvb1	30	22	37	31	39	11
Vandenberghe jvb2	7	10	47	68	13	1
Vandenberghe jvb3	54	29	116	23	73	6
wasti chrm	56		209	363	381	116
wasti genoto	15		83	117	179	50
wasti precrisi	12	3	45	26	158	82
wasti temsa	17	21		128	241	54
wasti tez	21		107	337	203	26
Total:	1426	744	2872	1802	2404	1142
Percent	13.72%	7.16%	27.64%	20.10%	29.25%	21.35%